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LEGAL ASPECTS OF TRANSMISSION OF DIGITAL ASSETS ON DEATH

Edina Harbinja

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This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

Signed:

Date:

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Death Girl

Abstract

This thesis explores the key issues surrounding the transmission of digital assets on death. To answer this primary research questions, the author first looks at the legal nature of digital assets, which are defined as any asset of personal or economic value online (capable of post-mortem transmission). She then analyses in depth the three most typical and widely used types of assets: virtual worlds, emails and social networks. In trying to reach decisions on the legal nature of digital assets, the thesis first looks for help to the institution of property. If an asset can be considered the property of the deceased user, then in most countries it forms part of an estate and transmits on death. The same goes for intellectual property (primarily copyright herein). If an asset cannot and should not be considered property, or protected by copyright, then arguably it cannot transmit on death. The thesis finds that email contents, virtual world items and social network contents are not and should not be considered as property. Some of this content can, however, be protected by copyright and thus is transmissible on death. If significant user interests and expectations exist in the transmission of digital assets on death, therefore, legislative action will be required in the areas of copyright and succession laws.

The research demonstrates that some of the content, primarily information and personal data, is neither property nor protected by copyright. For this content, the analysis discusses some alternative legal institutions (breach of confidence, data protection) and argues that their protection can be extended to include the deceased users. The thesis thus introduces a novel phenomenon of post-mortem privacy, the protection of privacy interests of the deceased. It argues that this phenomenon merits a policy and legal account and submits that this concept should foster the user's autonomy and control, preventing the default transmission of digital assets on death.

The thesis further looks at the allocation of ownership of assets through service providers' contracts, finding a contradictory approach of service providers regarding ownership and transmission of digital assets. These contracts usually curtail the users' autonomy and control over their assets in life and post-mortem. There have been some recent technological developments led by Google and Facebook, which enable an in-service transmission on the death of some of the content associated with these accounts. These solutions are not free from problems, and the thesis evaluates them and proposes some improvements.

User’s autonomy is the main underpinning value of the thesis and the basis for some tentative solutions suggested in the thesis.

Table of Contents

Chapter 1 - Introduction

1.1. A brief outline of the thesis

This thesis seeks to identify and explore the main issues surrounding the transmission of digital assets on death. In other words, the primary research question asked is whether digital assets can and/or should be transmitted on the death of a user. The question is novel from an academic perspective, but there has been a lot of media and user attention directed towards it recently. Some of the usual questions asked by users, families and friends of the deceased and the media are: What happens to my Google/Facebook/World of Warcraft account when I die? Can we access our deceased relative's Facebook/Twitter account and/or download their content? Do we own our personal data, pictures, posts, videos, notes, avatars, castles online? Why do I not have control over my accounts? Most of these significant and challenging questions will be discussed in this thesis.

To answer the principal research questions, it is necessary to look at the most important subordinate question first, i.e. What is the legal nature of digital assets? As demonstrated later in this chapter (section 1.3.1.) digital assets potentially include a vast variety of different assets online and their number is growing with the development of new technologies (business accounts, emails, social networks, games, personal data, domain names, virtual currencies, etc.). Due to their number and features, it is argued that it would not be viable to look at the legal nature, and consequently the transmission on death, of all these different assets. Therefore, the thesis analyses the three most typical and widely used types of assets, those related to emails, social networks and virtual worlds.

The most obvious concept to look at in answering the subordinate question is property. If an asset can be considered property of the deceased user, then in most countries it forms a part of an estate and transmits on death. The same is true for intellectual property (primarily copyright for the purpose of this thesis), which is

arguably a subset of property.[1] Even if we reject the categorisation of IP as property, copyright protection transmits on death and lasts for 70 years post-mortem in most western countries. Whereas copyright protection has been harmonised to a great extent within these jurisdictions, the doctrinal and normative conceptions of property vary by jurisdiction, especially with regards to the common and civil law. This lack of harmonisation is important since digital assets are typically located in a transnational space e.g. on a server physically located in Ireland, owned by a US company, and accessed by and created by users from many different jurisdictions. All these issues are discussed in the thesis.

Conversely, if it cannot be established that digital assets are property or protected by copyright, then we need to look at some alternative legal institutions and find whether they offer legal protection to the deceased or their heirs or legatees. These institutions include various forms of protection of information and personal data (breach of confidence, trade secrets, data protection). This issue of 'property in information' is examined in detail in chapter 4.

If digital assets are property, then that property can in most circumstances be reallocated by instruments such as will, contract or trust. Thus, a secondary key issue surrounding transmission of digital assets on death is the allocation of ownership of digital assets through service providers' contracts. The analysis in this thesis finds a very varied and contradictory approach among service providers regarding ownership and transmission of digital assets. As a rule, these contracts usually curtail the user's autonomy and control over their assets in life and post-mortem. On the other hand, there have been some recent technological developments lead by Google and Facebook, which enable an in-service transmission on death of some of the content associated with the email or social network account (emails, contact lists, photos, posts, notes, videos, etc.). These solutions are, however, not free from problems and the thesis aims to evaluate them and propose some improvements.

Finally, the thesis discusses as part of its novel contribution to the literature the phenomenon of post-mortem privacy: i.e. the privacy interests of the deceased. It is

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[1] There is an interesting academic debate on this question. The author does not share the view that copyright is property, see section 2.3.

submitted that this concept should prevent the default/intestate transmission of digital assets on death, in order to foster the user's autonomy and control online. This further means that assets created on an intermediary platform should not necessarily remain within the user's estate, but there should be an option for them to control their transmission on death as with conventional non-digital assets. We will look at this issue further and separately for all the case studies, given their specificities and legal relationships arising therein. Further, the thesis argues that this phenomenon merits policy and legal attention.

All these issues are discussed individually for each case study. In brief, the thesis finds that email contents, virtual world items and social network contents are not and should not be property. Some of this content can be protected by copyright and transmitted on death. To achieve this protection, however, legislative action is required in copyright and succession law. Other types of content, information and personal data, cannot be transmitted and should not be propertised. Rather, existing legal institutions (breach of confidence, data protection) should be extended to protect post-mortem privacy and enable user's choice and control over this type of content in his/her email, social network and gaming accounts.

Finally, the thesis suggests some tentative solutions, including policy, legislative and 'code' changes. These solutions should foster the user's autonomy and aim to recognise the in-service transmission of digital assets (e.g. transmission of Facebook content to one's Facebook friends). The solutions will be explored in detail in the author's further research.

For the purpose of this thesis, it was necessary to focus on answering in principle the fundamental question not answered in the literature before, i.e. what is the nature of digital assets and do they transmit on death. Due to the complexity of these crucial questions, the detailed analysis of national succession laws and development of these tentative solutions is outside the scope of the thesis. Issues of international private law (conflicts of law) and criminal law, while referred to, have also not been examined in detail.

1.2. Chapter summaries

Chapter 2 - Theoretical Underpinnings - Property and autonomy

The first chapter sets out a theoretical and normative framework for considering the legal nature of digital assets, i.e. case studies selected in this thesis. It is argued that the question of the legal nature of digital assets is the *sine qua non* in order to proceed to the specific issues relating to the transmission of digital assets on death. If a digital asset includes main doctrinal features/incidents of property and can be justified by one or more property theories, then the asset forms a part of the deceased's estate.

First, the chapter explores different theoretical and doctrinal definitions and the key features of property. It analyses conceptions of property and differences in various legal traditions, drawn from the main common and civil legal systems.

Second, the chapter looks at normative justifications of property, drawn from theoretical literature. This will enable further consideration of whether these justifications apply to the contested objects of property such as information or personal data, and consequently, digital assets that are made up of this kind of content.

Third, the chapter engages in a discussion of the guiding principle of the thesis, i.e. autonomy. The chapter looks at some most significant western theories of autonomy, adopting a liberal and individualist approach to autonomy. Subsequently, the chapter looks at the relationship between privacy and autonomy, in order to identify theoretical grounding for post-mortem privacy, as an extension of privacy and autonomy after death. Further support for this argument is found in the concept of testamentary freedom, which entails an extension of autonomy post mortem. This discussion is chiefly relevant for chapters 4 and 5, but as is it an underpinning value of the thesis and a basis for the suggested solutions, the discussion is positioned in the theoretical chapter.

More generally, the chapter set outs a framework where, if a digital asset cannot and should not be considered property, then an alternative theoretical framework is found in autonomy and post-mortem privacy, which would prevent the default transmission of that asset.

Chapter 3 – Virtual Worlds

This is the first of the case study chapters. All these chapters generally identify seven main problems around transmission of digital assets on death, i.e.: the nature of these assets (whether they are property, protected by copyright or something else); access to a user's account (regulated by service provider contracts, or terms of service (ToS); post-mortem privacy (protection of the deceased's privacy); potential conflicts between wills, intestate succession laws and technological solutions; conflicts between the interests of the deceased, their family and friends; criminal legislation (laws on interception of communications and unauthorised access to computer systems), and jurisdiction issues. The five problems are looked at in the case study chapters in detail. The issues of jurisdiction and criminal law are mentioned only briefly, in order to enable an in-depth analysis of the other issues. Another reason for this is that the focus of this thesis is mainly on substantive civil law issues, and criminal, jurisdiction and other conflicts of law issues are acknowledged but not dealt with in depth.

The third chapter discusses the issues of virtual worlds and transmission of assets found there on death.

First, the chapter focuses on the virtual property phenomenon and explores whether there could be property in VW assets, i.e. different items players create and acquire in-game. The chapter draws on the theoretical framework set out in Chapter 1, both the normative and conceptual arguments. It uses the conceptual framework introduced by Abramovich and looks at three layers of virtual property, namely, the developer's code, virtual assets and intellectual property in users' creations. The analysis focuses on the second level, viz. items which mimic physical property, for the reasons explained in section 3.2.

Second, the analysis assesses terms of service of two major VW providers which feature heavily in the literature (Blizzard and Linden Lab) and identifies numerous limitations they impose on accessing, using and transferring virtual assets.

Third, recognising the economic, personal and social value of VWs, drawn from economic and humanities literature and media reports, the chapter assesses the phenomenon of *constitutionalisation* of VWs. This phenomenon serves as an argument for proposing a solution peculiar to VWs only, and different from other case

studies. Therefore, the chapter concludes proposing a solution that represents a compromise between the interests of the players and developers, acknowledging that VWs are places on their own, with constitutions and distinctive features of *environmentality* (mimicking the real world). The solution suggests that players should have their interests recognised in the form of a peculiar personal right, called in this thesis *virtual worlds user right (VWs user right)*. Monetary interests of VWs user right transmit on death, as explained in this chapter.

Chapter 4 – Emails

Chapter 4 considers emails and their transmission on death.

The chapter first discusses the issue of whether there is copyright in email contents and property in information and personal data stored therein. Thus, the chapter engages in a specific discussion of property in information and personal data, which is relevant for this and the subsequent chapter. The question of property in information, justifications and doctrinal analysis of whether information and personal data could be deemed property is answered using normative and doctrinal sources (mainly derived from the US and UK).

The chapter demonstrates that some material can be protected by copyright and transmitted accordingly. The focus is on unpublished content, as the transmission of published works protected by copyright is straightforward and not digital asset specific. Following the doctrinal and normative analysis of property in information and personal data, this chapter asserts that the informational and personal data content of the email is not and should not be regarded as the property of a user.

Second, the chapter analyses the contractual provisions of the main email providers, Google, Microsoft and Yahoo, in order to determine whether these contracts recognise property/copyright in users' email content and how they regulate the transmission of these assets on death. The chapter finds that these provisions complicate the issues of property and transmission of digital assets and do not offer a meaningful control over the assets for their users.

Third, the chapter adopts a novel focus introduced in chapter 2, the idea of post-mortem privacy, i.e. the right to privacy after death. This concept serves as an

argument against the default transmission of emails on death without the deceased's consent, whether through the laws of intestacy or by requiring the intermediaries to provide access to the deceased's emails.

Fourth, the chapter canvasses a solution which combines law and technology. This solution accounts for the phenomenon of post-mortem privacy and the fact that the options available to the users for disposing of their property offline are not available in the case of their digital assets. Even if the traditional property analysis has been discarded in this case study, emails as digital assets are still valuable as copyrightable material and a depository of personal data. For this reason, it is argued that much more control should be placed in the hands of the users. Post-mortem privacy, a potentially contested phenomenon, only accentuates the need to account for the interests of the deceased more, having in mind the volume of personal data and personal nature of emails. Therefore, an in-service solution is promoted (e.g. transmission of Gmail content within the Gmail service), backed up by policy and legislation.

Chapter 5 – Social Networks

Chapter 5 addresses social networks and transmission on death of content created therein.

First, and following the methodology established in Chapter 3, it discusses whether social network accounts and content can be considered property or if they meet the requirements for copyright protection and if the content could transmit as copyright. The focus is again on unpublished content, as the transmission of published works protected by copyright is straightforward and not digital asset specific. The chapter refers to the theoretical discussion on property in information and personal data, set out in chapter 4.

Second, the chapter analyses the ToS of the main social network providers, Facebook and Twitter, in relation to their treatment of ownership and transmission of content on death. The chapter finds similar contradictions between relevant provisions within the same provider's terms of service. These terms, however, especially in the case of Facebook, are even more complex and scattered, and they do not offer an informed and meaningful choice for their users to control their assets.

Third, the chapter follows the analysis set out in Chapter 3 and uses post-mortem privacy as an argument against the default transmission of social network content on death without the deceased's consent. This phenomenon, along with the non-proprietary nature of the content, should preclude the default transmission of social network accounts according to the law of intestacy. In the absence of the user's will and in order to protect the deceased's privacy, it is argued that the default applied by the intermediary's ToS and code should be the deletion of the user's data on death.

Fourth, recognising the issues of access to this content, post-mortem privacy, conflicts of the deceased's interests with the interests of his heirs and friends, the chapter suggests a solution similar to the solution in chapter 4, i.e. combining technology and law. The chapter also suggests some policy and legislative reforms, similar to chapter 4.

Chapter 6 - Tentative Solutions and Conclusions

First, the conclusion summarises the main findings of the thesis and provides tentative solutions, some general principles applicable to all the case studies. It also canvasses solutions that are asset-specific.

Second, the concluding chapter argues for policy and legal reforms, which would draw on the technology solutions introduced by the major service providers (Google and Facebook at the moment). These 'code' solutions, noting their deficiencies identified in the case study chapters, are a good start but cannot ideally remain as currently set, and some principles for revising these solutions are suggested in this chapter.

Third, the chapter provisionally suggests legislative changes in the areas of copyright and succession law, aimed at removing the obstacles to user's control of digital assets identified in the case study chapters.

1.3. Digital assets

1.3.1. The concept of digital assets

The notion of digital assets is a relatively new phenomenon, lacking a proper legal definition, with diverse meanings attributed to it. For instance, from a lay person's perspective, it could be anything valuable online, any asset (account, file, document, digital footprint) that has a personal, economic or social attachment to an individual. The legal meaning, however, needs a little more precision. Determining its legal definition and nature would enable an adequate legal treatment and regulation. So far, there have been a few attempts to define and classify them. Most of the definitions are, however, inductive and try to theorise starting from the existing assets online, trying to make appropriate generalisations and classifications. Also, many authors use the terms 'virtual assets' and 'digital assets' interchangeably. In this thesis, for the reason of precision and consistency, the term 'digital assets' will be used as an umbrella term, unless otherwise stated. The term virtual assets will be reserved for Chapter 2 and considerations on assets in virtual worlds (see section 3.3.).

Perhaps the most comprehensive definition so far has been offered by Cahn. She categorises digital assets into the following: personal assets ('typically stored on a computer or smartphone or uploaded onto a website, including photographs, videos, or even music playlists.'[2]), social media assets ('entail social interactions with a network of people through various mediums, including websites such as Facebook and Twitter, as well as e-mail accounts.'[3]), financial assets ('bank accounts, Amazon accounts, Pay-Pal accounts, accounts with other shopping sites, or online bill payment systems.'[4], virtual currency), business accounts ('generally include customer addresses and patient information.'[5]). Perrone accepts and uses this categorisation.[6]

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2 N Cahn 'Postmortem Life On-Line' (2011) 25 Prob. & Prop. 36, 36-37.

3 Ibid.

4 Ibid.

5 Ibid.

6 M Perrone 'What Happens When We Die: Estate Planning of Digital Assets' (2012/2013) 21 CommLaw Conspectus 185.

Some assets, however, due to their unique features, could perhaps permeate and be included in all these categories. One of the examples is eBay reputation, which is personal in essence, dependent on the social interactions (user's feedback), tied to a business account and brings financial benefits. With the increased integration of online services, many platforms now include all of these categories at the same time. For instance, Gmail, Google's email platform, might be used for business purposes, for storing photographs and videos (connected to Google Drive, Google's cloud storage service), for social network purposes (as it is connected to Google+, Google's social network site) and as a payment system (with the recent feature of sending money via Gmail, though a user's Google Wallet service in the US and UK). It is, therefore, sometimes difficult to clearly separate and define the categories of digital assets.

Another categorisation divides digital assets into the following categories: access information; tangible digital assets; intangible digital assets; and metadata.[7] Access information includes account numbers and log-in information and, according to Haworth, are not assets in the strict sense, as they only enable access to other assets. Tangible digital assets, on the other hand, are digital property, held in a definable form, are likely to be transferred and converted into physical assets (photos, documents, emails, online banking account balances, domain names, blog posts).[8] Further, intangible digital assets are those harder to conceptualise, spread over the Internet in volumes and likely needing to be deleted or shut down ('likes' on Facebook, website profiles, comments, reviews). Lastly, metadata ('data about the data', histories, deleted data, code, location tags, etc.),[9] according to Haworth encounters similar issues like intangible assets, being even harder to find and gain access to.[10]

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7 S Haworth 'Laying Your Online Self to Rest: Evaluating the Uniform Fiduciary Access to Digital Assets Act' (2014) 68 U. Miami L. Rev. 535, 538.

8 Ibid.

9 See B T Ward et al., 'Electronic Discovery: Rules for a Digital Age' (2012) 18 B.U. J. SCI. & TECH. L. 150, 166–71; J. Favro, 'A New Frontier In Electronic Discovery: Preserving and Obtaining Metadata' (2007) 13 B.U. J. SCI. & TECH. L. 1, 4; see also G J Harris 'Metadata: High-Tech Invisible Ink Legal Considerations' (2009) 78 MISS. L.J. 939, 939–940.

10 Haworth (n7) 539.

Therefore, in her opinion, only the category of tangible digital assets is assets and digital property *stricto sensu*.

This is, however, a problematic categorisation and finding. First, most of the assets categorised as tangible for the purpose of this definition will never really be converted to a physical, offline form. In addition, log files and metadata can hardly be conceived of as digital assets, as these are just properties of an underlying system and not something that has an individual and independent value and existence (clearly metadata just signifies some properties of other data and are derived from them, and login data serves as a tool, provided by service providers, for users to gain access to their other assets). As a side note, metadata can be valuable to service providers, as they provide critical analytics and indicate users' behaviours. This, however, is not focus of the thesis. Therefore, Haworth's definition is problematic just like those of Hopkins and Băbeanu, who argue that metadata, a valuable piece of data, can also represent a type of digital assets and help detect and find other digital assets.[11]

In our earlier work, Edwards and I define digital assets 'widely and not exclusively to include a huge range of intangible information goods associated with the online or "digital world"', giving examples of different digital assets.[12]

A more general definition starts with defining the terms that coin the notion of digital assets. Oxford English Dictionary defines digital, for instance, as 'Of signals, information, or data: represented by a series of discrete values (commonly the numbers 0 and 1), typically for electronic storage or processing.'[13] Similarly, 'virtual'

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11 J P Hopkins, 'Aferlife in the Cloud: Managing a Digital Estate' (2013) 5 Hastings Sci. & Tech L.J. 210, 211; D Băbeanu et al., 'Strategic Outlines: Between Value and Digital Assets Management' (2009) 11 *Annales Universitatis Apulensis Series Oeconomica* 318, 319.

12 L Edwards and E Harbinja, 'What Happens to My Facebook Profile When I Die? Legal Issues Around Transmission of Digital Assets on Death', in C Maciel and V Pereira, eds, *Digital Legacy And Interaction: Post-Mortem Issues* (Springer, 2013), 115.

13 *The Oxford English Dictionary* (*OED*), online edition, (Oxford University Press 2016), http://www.oed.com/ accessed 15 May 2016.

is defined as something that is 'occurring or existing primarily online' or that is 'being simulated on a computer or computer network.' According to this definition, 'virtual assets are the electronic information stored on a computer or through computer-related technology.'[14] Similarly, Hopkins defines digital assets as something that 'exists only as a numeric encoding expressed in binary form or 'any electronically stored information'.[15] Importantly, as rightly noted by Haworth, any definition of digital assets needs to be both broad (to encompass innovations online) and still clear enough so that everyone understands what it really means.[16]

The US Uniform Law Commission Fiduciary Access to Digital Assets Committee, proposed in its first draft an all-encompassing definition of digital property,[17] which includes both digital assets and digital accounts (providing access to a digital asset or a digital service).[18] The second draft, from May 2013, retains this definition,

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[14] American Law Institute, American Bar Association Continuing Legal Education 'Representing Estate and Trust Beneficiaries and Fiduciaries: VIRTUAL ASSETS' (*ALI-ABA Course of Study*, 14 – 15 July 2011) 1 http://www.cobar.org/repository/Inside_Bar/TrustEstate/SRC/Virtual%20Asset%20Subcommittee%20Research%20%231.pdf accessed 10 December 2015.

[15] Hopkins (n 11) 202; similarly, see N Dosch, 'Over View of Digital Assets: Defining Digital Assets for the Legal Community' (*Digital Estate Planning*, 14 May 2010) http://www.digitalestateplanning.coml accessed 15 May 2016, defines a digital asset as 'any file on your computer in a storage drive or website and any online account or membership.'; Conner accepts and uses this definition, J Conner 'Digital Life After Death: The Issue of Planning for a Person's Digital Assets After Death' (2010-2011) 3 Est. Plan. & Cmty. Prop. L.J. 301 303.

[16] Haworth (n 7) 3.

[17] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (February 15-16, 2013 Drafting Committee Meeting) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013feb7_FADA_MtgDraft_Styled.pdf accessed 15 May 2016, '(9) "Digital Property" means a digital account and digital assets and consists of the 1 ownership, management, and rights related to the digital asset and account.'

[18] Ibid '(8) "Digital asset" means information created, generated, sent, communicated, received, or stored by electronic means on a digital service or digital device and includes, without limitation, any usernames, words, characters, codes, or contract rights pursuant to the terms of service agreement that controls access to a digital account.'.

clarifying that digital property does not include the contents of electronic communication. The October 2013 draft seems, however, less ambitious in its definition, discarding the notion of digital property and retaining only the revised concept of digital assets[19]. The July 2014 draft of the Act, revised the definition once more, viz.

> *Digital assets' include products currently in existence and yet to be invented that are available only electronically. Digital assets include electronically stored information, such as: 1) any information stored on a computer and other digital devices; 2) content uploaded onto websites, ranging from photos to documents; and 3) rights in digital property, such as domain names or digital entitlements associated with online games....Both the catalogue and content of an electronic communication are covered by the term 'digital assets'.*[20]

The definition is, therefore, quite inclusive and technologically neutral, as it leaves room for assets 'yet to be invented'. In addition, it includes different general types of content, such as information, content uploaded online, rights and catalogue of electronic communications (meaning log files). The definition, however, expressly excludes 'an underlying asset or liability unless the asset or liability is itself an electronic record.'[21] The Uniform Law Commission revised the Act once again in December 2015, narrowing down the definition further, to include only electronic

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19 '(7) "Digital asset" means: a) information created, generated, sent, communicated, received, or stored by electronic means on a digital device or system that delivers digital information, and includes a contract right; and b) an electronic system for creating, generating, sending, receiving, storing, displaying, or processing information which the account holder is entitled to access.' National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (22 October 2013) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013nov_FADA_Mtg_Draft.pdf accessed 15 May 2016.

20 National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (July 2014) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADAA_Final.pdf accessed 10 December 2015 sec. 2(8) and p 9.

21 Ibid sec. 2(8).

records to 'in which an individual has a right or interest.' Similarly to the previous draft, the ULC expressly excludes underlying assets or liabilities.[22]

A similar definition has been created by Lamm, US probate attorney, emphasising that the concept includes intellectual property and contractual rights as well.[23] However, Lamm also notes that the full access to a standard account 'isn't all that valuable to family members or fiduciaries.' He argues that 'the contents of the online account are where the financial or sentimental value is located.'[24] Conner, conversely, confuses these concepts, claiming that virtual property and digital assets are synonymous.[25] Virtual property, as seen later in this chapter, is a term usually used to describe the player's property in virtual worlds. In discussing property, Conner finds it important to place digital assets in one of the traditional types of property, tangible or intangible. Thus, he concludes that it is difficult to make a clear distinction here, as digital assets could change their quality and become tangible from their initial intangible state (e.g. printing of photos).[26]

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[22] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Revised Fiduciary Access to Digital Assets Act' (December 2015) http://www.uniformlaws.org/Act.aspx?title=Fiduciary%20Access%20to%20Digital%20Assets%20Act,%20Revised%20(2015) accessed 10 May 2016 sec. 2(10).

[23] J Lamm, 'To My Son, I Leave All My Passwords' (*Trusts and Estate Magazine,* July 2009) http://www.gpmlaw.com/portalresource/lookup/wosid/cp-base-4-5968/media.name=/To_My_Son_I_Leave_All_My_Passwords.pdf , 'What is Digital Property?' (21 June 2010, blog) http://www.digitalpassing.com/2010/06/; 'Digital Property Created on the Internet Every 60 Seconds' (*Digital Passing Blog*, 20 June 2011) http://www.digitalpassing.com/2011/06/20/digital-property-created-internet-every-60-seconds/ accessed 15 May 2016.

[24] J Lamm, 'Planning Ahead for Access to Contents of a Decedent's Online Accounts' (*Digital Passing Blog* 9 February 2012) http://www.digitalpassing.com/2012/02/09/planning-ahead-access-contents-decedent-online-accounts/ accessed 15 May 2016.

[25] Conner (n 15) 25.

[26] Ibid.

A related concept to digital assets is the notion of 'user-generated content' (UGC). This phrase has been widely used predominantly in connection with social networks and other platforms that enable different sorts of users' creations. In 2007, OECD defined UGC as 'i) content made publicly available over the Internet, ii) which reflects a certain amount of creative effort, and iii) which is created outside of professional routines and practices.'[27] Ofcom has also looked at the definition and somewhat revised it to include:

> • *An endeavour leading to the creation of some form of media content: text, pictures, video, audio, games, data/metadata, or computer code – or any combination of these.*
>
> • *Content (as above) made available to the public but via online or connected platforms.*
>
> • *Activity that is not the principal or direct source of earned income for the creator.*[28]

This definition would include most of the categories of digital assets identified above. It would not, however, include the category of business assets (as these can be the source of income for their creator/user) and digital assets that are not made available to the public (e.g. emails, see discussion on the relevance of publication for these assets in Chapter 3; or private messages on social network sites). It is argued, therefore, that the term digital assets is a wider category and it will be used in this thesis to include UGC and other assets, as elaborated further below.

Digital asset, for the purpose of this thesis, is considered as any asset of personal or economic value online (capable of post-mortem transmission). These assets could have a quality of property, contractual relation, intellectual property, personality right

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[27] OECD, 'Participative Web: User-Generated-Content' DSTI/ICCP/IE(2006)7/FINAL 12 April 2007 at http://www.oecd.org/sti/38393115.pdf accessed 15 May 2016.

[28] T Hopkins, 'Report for Ofcom: The Value of User-Generated Content' (*OFCOM*, 21 June 2012) http://stakeholders.ofcom.org.uk/binaries/research/research-publications/content.pdf accessed 15 May 2016.

or personal data. Recognising the practical difficulties in encompassing all the possible assets, the thesis will use the case study method and try to analyse the legal nature of emails, social network accounts and virtual world assets. Other valuable assets, such as financial accounts (online banking), businesses (domain names, eBay, Amazon accounts), other personal assets (MP3 collections, photograph collections, etc.) are outside the scope of this thesis but will be discussed by this author in her future research.

This thesis will discuss a few typical and currently relevant digital assets, as examples and case studies, i.e. emails, social networks sites and virtual worlds. It is not argued here that these assets are the most economically valuable or that they will continue being as significant as technology develops. Rather, the examples are chosen for their current prominence, usage, user base and complexities surrounding their legal nature. In addition, these assets are perhaps most intrinsically intertwined in everyday life of an average user (see data on the usage of these assets, presented in the introductory sections of the case study chapters, sections 3.1., 4.1., 5.1.) and, since the focus of the thesis is to the users and not on the businesses, the examples will serve its purpose. Furthermore, as technology develops, models of protecting and transmitting these assets proposed herein could probably be more easily applicable to other kinds of emerging communications, social networks and other virtual technologies and communities. In future research, this author plans to continue exploring the nature of some other digital assets (business, financial, etc.), but at the moment, the focus will be on these examples, with possible sporadic references to some other types of digital assets.

1.3.2. Value of digital assets

After having considered the definition of digital assets, it would be useful to explore what is the value attributed to them. The value, of course, does not only need to be monetary; personal attachments and memories are also valuables for individuals. These, are, however, harder to measure and conceptualise; their place in succession laws is not as prominent as the place of pecuniary interests since it is the primary function of this area of law to enable and facilitate the transfer of wealth. It is interesting to see, therefore, whether digital assets could belong in any way to the

wealth, or estate of a person, so as to determine if digital assets could be considered by this area of law later in this thesis.

So, how valuable could digital assets be? For instance, according to a 2011 survey from McAfee, Intel's security-technology unit, Americans valued their digital assets, on average, at almost $55,000.[29] World internet users have roughly $37,438 in digital assets across a variety of digital devices and platforms. These assets included: entertainment files (i.e. music downloads), personal memories (i.e. photographs), personal communications, (i.e. emails or notes), personal records (i.e. health, financial, insurance), career information (i.e. resumes, portfolios, cover letters, email contacts) and hobbies and creative projects. When broken down into categories, the value shown was personal memories at around $19,000, personal records at $7,000, career information at $4,000, hobbies at $3,000, personal communications at $3,000, and entertainment files at $2,000. This resulted in an average of 2,777 digital files per person.[30]

In Britain, in October 2011, the Centre for Creative and Social Technology (CAST) at Goldsmiths, University of London, released a study of Internet use in the UK entitled 'Generation Cloud'. The study determined that British users have at least GBP 2.3 billion worth of digital assets stored in the cloud. The study shows that 24 per cent of UK adults estimate that they have digital assets worth more than £200 per person in the cloud, which amounts to at least £2.3bn in total.[31] It is also interesting to note the

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[29] Fiduciary Access to Digital Assets Act (n 20) 4; see also A Dale, 'More Estate Plans Account for "Digital Assets"' (*WSJ*, 13 June 2013) http://online.wsj.com/article/SB10001424127887323734304578543151391292038.html accessed 15 May 2016.

[30] McAfee 'McAfee Reveals Average Internet User Has More Than $37,000 in Underprotected 'Digital Assets'' (27 September 2011) http://www.mcafee.com/hk/about/news/2011/q3/20110927-01.aspx accessed 10 December 2015; see Hopkins (n 11) 221.

[31] Rackspace Hosting 'Generation Cloud: A social study into the impact of cloud-based services on everyday UK life' (16 November 2011) http://www.rackspace.co.uk/sites/default/files/whitepapers/generation_cloud.pdf accessed 15 May 2016.

amount of digital content created and posted every 60 seconds online.[32] It is interesting to note that not all the assets have value, though, a considerable amount could be qualified as 'digital trash'.[33]

All the research mentioned here, though quite useful, lacks comprehensiveness and perhaps, a more global approach. Therefore, further and more up to date empirical research on this topic would be more than welcomed by many academics and the public.

Nevertheless, having in mind this briefly sketched value of digital assets and further development and dominance of digital technologies and the information society, where our lives and our wealth will increasingly take on a digital form, it is worth exploring the legal nature of these assets. In this way, legal reality would be in accordance with the economic and social one. The economic and social importance of the chosen case studies (virtual worlds, emails and social networks) will be further elaborated in the case study chapters discussing these assets individually.

1.4. Expert observations

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[32] Some of the interesting examples include: Over 168,000,000 e–mails are sent every 60 seconds; Over 695,000 Facebook status updates are written every 60 seconds; Over 6,600 digital photos are added to Flickr every 60 seconds; About 600 digital videos are added to YouTube every 60 seconds; About 320 new Twitter accounts are created every 60 seconds; Over 100 new LinkedIn accounts are created every 60 seconds; About 70 new Internet domain names are registered every 60 seconds; Over 60 new blogs are created every 60 seconds. 'Digital Property Created on the Internet Every 60 Seconds' (*Digital Passing Blog*, 20 June 2011) http://www.digitalpassing.com/2011/06/20/digital-property-created-internet-every-60-seconds/ accessed 15 May 2016.

[33] Hopkins (n 11) 231.

At the initial stage of this research, the author conducted a form of empirical study, interviewing 11 interviewees from the legal profession and the digital industry.[34] The interviewees from the legal profession were chosen based on their location (California and England), and their expertise in the area of probate law or Internet/IT law. The major industry players in the email and social network industries, with the biggest user base and whose terms and conditions are in the focus of the case studies, have also been interviewed.[35]

The main aim of the research was to gather some background knowledge on how the profession looks at the cases of transmission of digital assets and whether the professionals are aware of the importance of these issues. In addition, the purpose was to conduct a broad survey of the industry practice and to understand their arguments on why these issues are/are not important, how they deal with them and whether they maintain that the policy makers should assist the industry in finding the best solution.

The research is very general and not sufficiently rigorous to provide the empirical data that would form a core method of this thesis. Therefore, as argued further below, the research is not empirical *stricto sensu.* However, findings from this part of the research resulted in some valuable general observations on the value of digital

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[34] Ethical approval was granted on 22 February 2013 by the Law School Ethics Committee, University of Strathclyde.

[35] Respondent 1, succession lawyer, experienced, large Scottish law firm, interviewed on 22 April 2013; Respondent 2, IT and telecoms lawyer, experienced, international law firm, Seattle office, interviewed via Skype on 16 May 2013; Respondent 3, IT and telecoms lawyer, experienced, international law firm, London office, interviewed on 21 May 2013; Respondent 4, probate and estate planning lawyer, experienced, international law firm, London office, interviewed on 22 May 2013; Respondent 5, probate and estate planning lawyer, experienced, international law firm, London office, interviewed on 24 May 2013; Respondent 6, Internet and IT lawyer, experienced, international law firm, San Francisco CA office, interviewed on 11 June 2013; Respondent 7, information management and systems specialist, with US Internet search company, interviewed on 11 June 2013; Respondent 8, lawyer, with US social network company, interviewed on 12 June 2013; Respondent 9, Internet and IT lawyer, experienced, international law firm, Los Altos CA office, interviewed on 13 June 2013; Respondent 10, estate planning and probate lawyer, experienced, Australian law firm, interviewed via Skype on 20 June 2013; Respondent 11, estate planning and probate law firm, group response, Bath, interviewed via email, response received on 7 March 2014. Interview records on file with the author.

assets, albeit without statistical significance, the importance of the issues and the current practice.

This research activity, in summary, demonstrated the general understanding of the importance of digital assets, Regarding both their personal and economic value. All the interviewees agreed that this is a principal issue and some kinds of solutions are required. One of the main themes identified by both categories of respondents (lawyers and non-lawyers) was the unclear legal status of digital assets. Some of them considered digital assets property and a part of an estate but were not clear on how to fit the features of digital assets within the definition of property (mostly for the issues of intangibility).

All the interviewees expressed concerns about the current legislative and policy outlook on the issues, calling for more clarity. The industry representatives believed that the lawmakers should support their technology solutions. The legal professionals stated that the practice in this area is still emerging; some of them did deal with cases involving digital assets and succession. Overall, they agree that there is a lack of awareness within the legal profession as well, resulting in some dubious suggestions that might jeopardise the security of digital assets and compromise their transmission (such as stapling usernames and passwords of different assets to a will).

The interviewees welcomed the efforts of the Uniform Law Commission in the US and called for a greater engagement of profession. Given the limitations the legal profession faces (e.g. one interviewee noted that the lawyers would look at a new issue in more detail only if they are paid to do so),[36] they also welcomed any assistance coming from academic work, such as this thesis.

The interviewees also referred to the criminal law and privacy issues. All of them agreed that post-mortem privacy should be advanced and that individuals should have more control over what happens to their data and digital assets on death.

In summary, the interviews confirmed the presumptions about the lack of clarity in law, policy and practice and the need for some clear policy and legal solutions, which

would shed more light on the nature of these assets and resolve the issues around their transmission (criminal law issues, privacy and technology solutions).

1.5. Stakeholders

This section will briefly identify critical stakeholders involved in any discussion of transmission of digital assets. These stakeholders have different interests in digital assets, and the interests are often conflicting. Sometimes, however, they also converge, depending on the type of an asset. The specific relationship between these assets will be analysed in more detail in the case study chapters. These chapters will take account of the characteristics of the assets and a myriad of relationships, legal and societal, existing therein.

Users are a significant stakeholder for the purpose of this thesis. This thesis starts from the standpoint that the interests of users are not the sole, but are the paramount policy consideration in the debates explored in this thesis. What are the reasons for this?

First, in the offline world, most legal systems already recognise that individuals can dispose of their property, tangible and intangible (although this may be limited by other interests, e.g. the rights of spouses or children, or the right of society to inheritance taxes).

Second, the arguments for rights of testamentary freedom are arguably stronger in the online world than the offline, given the prevalence of personal data in digital assets, e.g. emails, social network posts, playlists, pictures, etc. (see sections 4.5. and 5.5.).

Third, the thesis draws on normative theories to question the propertisation of digital assets, one of which, personhood theory, is closely linked to the personality and creative acts of the user (see sections 2.6.3. and 2.7.4.). This argument is particularly strong when looking at digital assets that also fit the category of copyright, e.g. online literary or musical works. If digital assets cannot be perceived as property or protected by copyright, the analysis looks at post-mortem privacy. This concept, again, puts an individual into its focus, allowing for a different kind of post-mortem control (see sections 4.4. and 5.4.).

Their interests are therefore in the centre of the argument, underpinning findings in all the chapters, i.e. respecting autonomy and wishes of the deceased, expressed pre-mortem with regard to the transmission of their assets on death.

Another group of stakeholders include the deceased users' **heirs and families**, on the one hand, and the **users' friends**, on the other. The heirs and families usually aim to get access to the accounts/content in a digital asset, treating these as the deceased user's estate. On the other hand, friends are also interested in having some control over their online relationship with the deceased, either by preserving the shared and co-constructed content or discontinuing their relationship online. The analysis in this thesis does not follow the established succession law principles, where next of kin take priority in the intestate succession (the lack of a will). Instead, the thesis recognises the shift in the cultures online and offline, co-constructed and shared profiles, and the increasingly important interests of users' friends (see section 5.1. in particular). It is argued that the culture of sharing content online, particularly on social networks, deserves a better policy and legal recognition. This notwithstanding, a user should be able to decide and leave his assets to friends in a context of a specific digital asset, be it a social network or virtual world. A basis for this can be found in the anthropological and psychological evidence, explored by the author to some extent. This literature, however, does not form a core part of the whole thesis, but it is particularly germane to section 5.1. of the thesis. This proposition is less applicable to the context of emails, where the feature of sharing and co-construction is not equally prominent (see section 4.1.).

Service providers and platforms (e.g. Facebook, Google, Twitter, Linden Lab, etc.) have legitimate interests in preserving and developing their businesses. The providers have created their platforms, investing money and effort in them, and this should be considered. However, even though conventionally in the West, and especially the US, countries tend to take a fairly *laissez-faire* attitude to the regulation of corporations, it is argued in this thesis that the importance of these platforms and businesses is so significant that it merits a regulatory account. For example, Facebook's users base is enormous, larger than any state population, and legitimate concerns of users need to be recognised (such as, for instance, privacy concerns: see more in sections 5.1.1. and 5.4.). In addition, the mere nature of digital assets depends largely upon service providers, their computer code and servers. Borrowing from Lessig's taxonomy of

regulation of the Internet,[37] it is worth noting that service providers have the power to modify, destroy and create digital assets through 'code', and this control cannot be left out of any considerations of digital assets. As demonstrated later in this thesis (see sections 4.3.1. and 5.3.1.), solutions created by service providers support the main argument in this thesis, the user's autonomy, as they enable an in-service control over a user's content. In addition, service providers support post-mortem privacy arguments as well, so it is not overly difficult to take account of these interests in the thesis focused on individual users.

Society and public interests are also worth mentioning when discussing the post-mortem treatment of digital assets. These are predominantly interests in keeping accurate historical records, interests of archives, but also the potential conflict between free speech and post-mortem privacy. This perspective is not in the focus of the thesis, however. It is argued that certain safeguards and exceptions can be established to account for these interests, but the analysis here will not discuss this further.

Finally, an emerging category of stakeholders is **online digital legacy services**, which aim to assist in the disposition of digital assets on death. They usually come in the form of digital wills, depositories of passwords and/or content, memorial websites, messaging services, etc. (e.g. Legacy Locker, ifIdie, Cyrus Legacy, My Digital Executor, etc.). These services aim to shift the control of digital assets to users by enabling the designation of beneficiaries who will receive passwords/content of digital asset accounts. However, the services usually conflict with terms of service of digital asset service providers. Furthermore, they are not recognised by the law, are not valid wills and can conflict with the laws of intestacy. These issues will be further analysed in the final chapter, where different solutions to the issues identified in the thesis are assessed. However, it is worth noting that the issues surrounding these services are significant and it is not recommended in this thesis that the services are used in their current form and with the law as it stands now.

1.6. Methodological considerations

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37 L Lessig*, Code, version 2.0* (New York: Basic Books, 2006).

The thesis predominantly adopts a black-letter law, doctrinal perspective. However, the complexity of the phenomenon of digital assets per se as a novel, global and technologically conditioned assets requires that assessments and conclusions are based on more than primary legal sources and commentaries on these sources. The thesis, therefore, engages with relevant aspects of other theoretical areas and disciplines, such as philosophy, economics, anthropology and psychology. These disciplines are useful, as they may offer some valuable arguments in relation to, for instance, economic value and the importance of digital assets or their personal, intimate significance. In addition, an important part of the analysis in Chapter 2 is theoretical and normative, where the thesis aims to explore whether these new types of assets (digital assets) could and should fit within the most established Western property theories. Finally, the thesis looks at policy implications of transmission of digital assets on death and suggests some tentative policy/legislative recommendations in conclusion.

Moreover, the analysis refers to some empirical work. This work, however, is not rigorous and the thesis cannot be classified as empirically-based. The purpose of the empirical research (informant interviews), was to gain some background knowledge and observations on how the legal profession and major market players view the issues of transmission of digital assets. These views will be used in the case study chapter, to an extent, but they have mainly been presented in this chapter, with the summary of findings and observations (section 1.4.).

Regarding jurisdiction choice, the thesis draws on a mix of sources, not in a strictly legal comparative manner (e.g. comparing English to French law *per se*), but as appropriate and viable for finding the best sources to investigate and illuminate areas explored in the thesis. Thus, for instance, when looking at black letter law developments on specific digital assets most sources are drawn from the US (California, where appropriate) and UK law (England, where applicable). This is partly due to them being the lead digital economies,[38] and partly due to limitations of language and access to case law. On the other hand, when looking at the fundamental

[38] In terms of innovation and leadership; this, however might change with China's increasing engagement in innovations, for instance.

ways property as a concept is defined and categorised, in order to investigate how digital assets fitted in, the thesis found considerable and useful differences between civil and common law, so the analysis drew extensively on sources from both camps. This decision enabled the identification of common themes in the legal families, consideration of legal transplants, and resulted in a combined common-civil law solution (see section 3.6.3.).

Another reason for the decision on jurisdictions is in the jurisdictional complexities of the issues relevant to considering the legal nature of digital assets (i.e. property, succession IP and privacy). Black letter property and succession law, on the one hand, can be discussed from a perspective of English and Californian law, as these institutions are regulated by their individual laws mainly. On the contrary, the intellectual property regimes in both countries are not at the level of England or California, but rather at the UK and US levels. Aspects of IP law have been harmonised at the EU and international levels, so a more global approach is relevant as well. The same can be argued for privacy (although, if we are looking at a wider notion of privacy, i.e. defamation or personality rights, then the discussion can be focused on these individual jurisdictions). Furthermore, case law in the area of transmission of digital assets is very scarce and points to looking at the wider jurisdictions, such as China or the Netherlands (see sections 3.1.3., 4.1.1 and 5.1.1.). Some US federal efforts in the form of Fiduciary Access to Digital Assets Act illustrate the importance of looking at a wider picture as well (see section 6.2.1.).

Therefore, the main sources in the case study chapters, such as legislation and case law examples, but also additional socio-anthropological elements, will be sourced from specific jurisdictions that appear most appropriate for developing a discussion on digital assets.

1.7. Novel contribution

The thesis provides the first comprehensive academic account of the transmission of digital assets on death in the UK. The scholarship is more prominent in the US, and the thesis builds upon this literature. However, it also provides a critique and an approach distinct from the ones submitted by the US authors so far.

First, their analysis has not been comprehensive and has not considered the UK and EU intellectual property, property or privacy law, for instance. Second, this literature has not taken comprehensive account of the range of digital assets as this research does, using important case studies. Rather, the research thus far has tended to focus on one class of assets principally. Third, a comprehensive theoretical and normative background has not been explored, as it is set out in this thesis using labour, personhood and utilitarian theories. Fourth, while there has been a much theoretical exploration in US virtual worlds literature, which this research draws on, there has been no previous attempt to systematise it across different representative classes of assets. Finally, the thesis will suggest some clear and novel, albeit tentative, technology, policy and legal solutions (such as, for instance, *virtual user right* for virtual worlds, or post-mortem privacy as a general theme for the case studies).

1.8. Challenges

The main challenges encountered in this thesis were around the two most important issues: jurisdiction focus and viability.

The question about jurisdiction was whether civilian systems should be included or not and whether the focus should be on England and California only. The previous section has explained the rationale behind the chosen jurisdiction focus.

With regard to the second issue, viability, the challenges were mainly questions regarding whether the thesis should evaluate conflicts of laws, jurisdiction and criminal law issues in more detail. Notwithstanding the importance of these issues (as suggested in all the chapters), the thesis will focus on the substantive private law issues mainly. The reason for this is that the primary research question was to decide if, when and how digital assets are transmitted to heirs on death. This is a question primarily of private law - property law and succession law. Therefore, the author has decided that criminal law was mostly out of scope for the thesis, although the discussion has drawn on some case law on theft of digital assets, simply because case law is so sparse. The private international law aspects will be explored in the author's future work.

In addition, the thesis does not address substantive succession law in detail, i.e. who inherits digital assets, if they are transmissible. This is a very specific and technical question, and the answer varies by jurisdiction. More importantly, the research question of this thesis is the primary *meta* question of 'do digital assets transmit at all', and property and contract law are more relevant. However, the principles of succession law have been referred to in relation to conflicts between heirs and technological solutions for the transmission of digital assets and in making the comparison between offline and online rationales of succession.

Finally, some other challenges were: the lack of access to non-Anglo-American materials and the fast-changing pace of the digital world (e.g. service providers' changes of their policies).

Chapter 2 – Theoretical Underpinnings: Property and Autonomy

This chapter sets out a basic theoretical foundation for the thesis, used in the case study chapters on the following fundamental questions: 1. What is property; 2. What are the basic incidents of property in various jurisdictions, and 3. What are the conceptual justifications for categorising assets and objects as property. In order to identify possibilities for transmission of digital assets on death the thesis will look at the first fundamental issue, i.e. the nature of these assets. In answering this first question, property and intellectual property are the first apparent answers, since property and IP both clearly transmit on death (for more details on the transmission see sections 2.5. and 4.2.1). Therefore, if digital assets analysed in this thesis are found to be property or protected by intellectual property rights (copyright in particular), then their transmission is clear – property transmits on death, and copyright protection lasts for a number of years post-mortem (70 years in the referent jurisdictions, US and UK). In order to be able to conclude or discard this proposition for each of the case studies, the meaning of property, its incidents and justifications will be explored in this chapter. This discussion will be further applied to examine whether virtual world assets, email and social networks are property.

Furthermore, the chapter will discuss the main underpinning value of the thesis, i.e. autonomy, and its relationship with one of the novel contributions of the thesis, viz. post-mortem privacy. This analysis will be chiefly relevant to the second and third case studies (emails and social network), due to the prevalence of personal data and privacy issues in these digital assets. The issue of post-mortem privacy is less relevant to the first case study, virtual worlds, since players usually take up imaginary identities and do not share their personal data and the real-life identities therein. It is, however, still important to position this section in this chapter, as autonomy is a guiding principle of the entire thesis.

In summary, the chapter sets out the main theoretical background of the thesis, examining the concepts of property and autonomy. This thesis does not rely on any claim about the relationship between the concepts, of property, privacy and autonomy, however: it makes no claim, for example, that autonomy underpins property, or that the concept of privacy somehow ‘mediates’ between the concepts of autonomy and property. Rather, property is examined from various angles simply in order to determine whether virtual assets could (doctrinal question) and should

(normative question) be regarded as property. If the answer to either of these questions is 'yes', then these assets can be transmitted on death by the laws of testate and intestate succession. If the answer is 'no', because some of the assets are primarily made of information and personal data that cannot constitute property, then privacy as a concept takes precedence. Autonomy is regarded here as underpinning these privacy interests, and it is argued that autonomy—in this specific case—should extend beyond death in the form of post-mortem privacy. Testamentary freedom is treated as a precedent for the purposes of this argument.

This chapter will not discuss copyright from a theoretical perspective. The reason for this is that copyright's transmission on death is clear and settled in law, so if a digital asset meets the requirements of copyright protection, this right will be passed on to heirs of a deceased user. Therefore, theoretical considerations of copyright are outside the scope of this thesis. Rather, the chapters discussing case studies will assess if some of their content satisfies requirements of copyright from a doctrinal perspective. Notwithstanding that transmission of property is also very clear, features of property are not as settled or harmonised in law or theory as requirements for copyright protection are (at least from a black letter law perspective, without going into the debate around whether the current copyright regime is desirable or justified). Rather, as seen later in this chapter, it is highly contested whether information or other non-copyrightable content of digital assets is or should be property. Therefore, to enable this evaluation in the case study chapters, this chapter will engage in the debate about property from a theoretical and doctrinal perspective.

Information, conversely, as another dominant type of digital asset content (see section 4.1. and section 5.1.), has not been assessed from the perspective of post-mortem transmission. The legal nature of different types of information is often unclear, and one of the most significant considerations is whether information can be considered property. If the answer is positive, either from a black letter law or a normative perspective, then the content including predominantly information will transmit/should transmit on death like traditional property (see sec 1.7.). Conversely, if the answer is negative or unclear, each case study in this thesis will be assessed from the perspective of its specific content, excluding the general transmission of information. The discussion on property in information and personal data is more specific than the general theorising of property set out in this chapter, and it is primarily relevant to the case study analyses in chapter 4 and 5. Therefore that specific discussion will utilise

findings of the general concept of property explored in this chapter but will be delayed to chapter 4.

2.1. Defining the notion of property

This section will briefly explore the origin, usage and possible definitions of the word 'property'. It will demonstrate that all attempts at a comprehensive and all-encompassing definition, even on an essential, abstract level, are fruitless. This is necessary for the purpose of this thesis, since digital assets are typically located in a transnational space, e.g. on a server physically located in Ireland, owned by a US company, and accessed by and created by users from many different jurisdictions. Therefore, issues relating to the transmission of digital assets are likely to be even more complex when systems have very divergent views on what constitutes property. The choice of jurisdictions discussed in this chapter has been explained in section 1.6.

George, for instance, notes that property is 'notoriously difficult to define' and that the debate about its definition and nature has been going on for ages and 'seems set to rage for some time yet'.[1] Throughout this chapter, the key features of the property concept will be explored and suggested, even if it does not lead to a definite conclusion about the definition and nature of this important concept.

The word property comes from the Latin word *proprietas*, possibly through French *propriété*, meaning 'the peculiar nature or quality of a thing' and 'ownership'. The word is derived from the adjective *proprius* meaning 'own' or 'peculiar', as opposed to *communis* (common) or *alienus* (another's). Furthermore, the word can be rooted in the Greek *προ* or Sanskrit *pra* meaning 'in front of', 'before', 'close to', 'on behalf of'. Donahue interprets this core meaning as something that, even before getting its legal

[1]A George, 'The Difficulty of Defining 'Property'' (2005) 25(4) OJLS 813, 813.

meaning, represented an idea of 'what distinguishes an individual or a thing from a group or another'.[2]

The word has been used in different contexts and with various and, sometimes contradictory meanings, not only between the different legal systems but also within the same ones. For instance, older usage in England referred to a relationship between a persona and resources, a thing, while later, after the seventeenth century, the meaning pertained to the object of an ownership interest.[3] Along this line, Gray indicates a blurred distinction between property as a 'relationship' and property as a 'thing', arguing that the former use is correct and quoting Bentham and Macpherson to support his stance.[4] Further, he emphasises the dynamic quality of this relationship, changing in time both in subjects and objects of property.

It would be highly complex and, arguably, impossible to provide a unique definition of property, for all legal cultures and systems. This is a fact even in the case of a philosophical, more abstract definition, since throughout the history of contemplation on property; there was hardly any agreement on its essence and definition. There have been attempts to offer some common characteristics for the notion. For example, as Honoré puts it, ownership, *dominium*, *propriété*, *Eigentum*, 'stand not merely for the greatest interest in a thing in a particular system but for a type of interest with common features transcending particular systems'.[5] Honoré uses the term in the context of 'the 'liberal' concept of 'full' individual ownership'.[6]

Definitions in legal codes, according to Honoré, are not 'a safe guide'. However, even though he notes the similarity between the French Civil Code and Soviet Civil Code definitions, both emphasising the absoluteness in the term, he also warns of the

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[2] See J Donahue 'The Future of Property Predicted from its Past' in J R Pennock and J W Chapman, eds, *Property* (New York University Press, 1980), 31.

[3] J W Harris, *Property and Justice* (Clarendon Press, 1996), 10.

[4] K Gray, *Elements of Land Law* (London, 1987), 8-14.

[5] A M Honoré 'Ownership' in A G Guest, ed, *Oxford essays in jurisprudence, a collabourative work* (Oxford University Press, 1961), 108.

[6] Ibid 107.

different limits laid down by law.[7] According to this, it could be argued that ownership is the greatest interest in a thing in many contemporary legal systems, but the argument about the common features is much harder to sustain.

Another notable example in support of the argument put forward by Honoré is Blackstone's view on property, which is similar to that predominantly accepted in the Continental, civil law tradition. Blackstone uses the term '*the right of property*', as an equivalent of the ownership right in civilian usage. Ownership is, as will be demonstrated later in this chapter, only a subset of property, one of many property rights in civil law tradition.

Blackstone's view has later been rejected by most common law scholars and the judiciary, who embraced the 'bundle of rights' concept, as discussed later. His position is best reflected in the famous quote:

> *There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property; or that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe. And yet there are very few, that will give themselves the trouble to consider the origin and foundation of this right.*[8]

While legal scholars mainly expressed the views mentioned in brief above, the usage of the term and its definition become even more diverse if we look at other disciplines and contexts. Thus, for example, Grey tried to summarise contemporary usages of the term 'property' in law, economics, and legal theory.[9] One of the usages amongst teachers and law students in England is 'the whole body of law concerned with the use of land', another one is inherent to lawyers and some economists, who use it to

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[7] Ibid 110.

[8] S W Blackstone, *Commentaries on the Laws of England (1765-1769)* (18th ed, S. Sweet etc. 1829) Book II, ch. 1.

[9] T C Grey 'The Disintegration of Property' in Pennock and Chapman (n2).

identify it with rights *in rem* (rights against the whole world), as opposed to the rights *in personam* (rights against a determinate person).

Some economists, such as Posner and Demsetz, use the word to indicate the purpose of property, including all rights with the purpose to advance allocative efficiencies, such as the rights to life, liberty, and personal security. Others invoke the 'new property', like Reich, arguing that the traditional purpose of property is to ensure independence and security, thus proposing a revision of the concept in terms of welfare and public education law. [10]

Another specialised usage defines property as opposed to the liability according to the remedies available to protect it. Thus, property can be enforced, amongst other options (e.g. vindication, restitution), both by injunction and criminal law sanctions, whereas obligations are usually followed with damages as a remedy (see section 2.3.1.1.).

In his elaboration of property, Grey concludes that 'from a glance at the range of current usages the specialists who design and manipulate the legal structures of the advanced capitalist economies could easily do it without using the term property.'[11]

From a philosophical point of view, Waldron argues that property is 'a concept of which many different conceptions are possible'[12] and the conceptions are relative to different societies and their respective conception of incidents of ownership. [13] Further, defining the general concept, he states that it is 'a system of rules governing access to and control of material resources'.[14] Resource further is 'a material object capable of satisfying some human need or want'.[15]

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[10] C Reich, 'The New Property' (1964) 73 YLJ 733, discussing the wealth allocation of property function in relation to the 'government largesse', different social benefits and services, for an interesting overview see Harris (n3) 149-151.

[11] Grey (n 9) 71-73.

[12] J Waldron, *The Right to Private Property* (Clarendon Press; Oxford University Press, 1990) 31.

[13] Ibid.

[14] Ibid.

[15] Ibid.

Having briefly touched upon the notion of property and possible viewpoints and stances regarding its definition, the concept itself should become more clear and familiar after identifying its main features and categories, principally focusing on the common law conceptions. Also, the definitions and features will reflect the currently predominant capitalist economy conceptions of property in the Western World, notwithstanding different conceptions elsewhere, which reflect cultural, economic and societal characteristics of these societies (e.g. socialist conceptions and rejection of private property, tribal and indigenous conceptions of property, etc.). The reason for focusing on the former is that the thesis is primarily looking for practical and policy solutions in the current socio-economic system in the UK and US. Therefore, property in its western conception is used as a tool to suggest some solutions for the transmission of digital assets on death, in the system 'as is'.

2.2. Incidents of property

2.2.1. Identifying main incidents of property

In this section, the author will identify the main incidents of property, used further in this thesis in the discussions on whether digital assets include these incidents so that they can be considered property.

Honoré has offered one of the best-known attempts at defining the common elements or features of property or ownership. He identifies eleven exhaustive incidents of ownership that 'are not individually necessary, though they may be together sufficient, conditions for the person of inherence to be designated as 'owner' of a particular thing in a given system'.[16] These incidents are: the right to possess, the right to use, the right to manage, the right to the income of the thing, the right to the capital, the right to security, the rights of transmissibility and absence of term, the prohibition of harmful use, liability of execution, and the incident of residuarity.[17]

[16] Honoré (n 5) 112-113.

[17] Ibid 113-128.

It is interesting to note that these incidents do not explicitly include the right to destroy and to exclude, though these incidents could arguably fall under the rights to manage or right to use and the prohibition of harmful use. Thus, it looks like the quality of absoluteness, discussed below and pertaining to civilian systems, has not been considered as primary in this theory. However, since it strives to discover common incidents for different legal regimes, this omission is entirely understandable.

Similarly, building on Honoré's theory of property and his eleven elements of the notion, Becker proposes thirteen elements, i.e.: the right (claim) to possess, the right (liberty) to use, the right (power) to manage, the right (claim) to the income, the right (liberty) to consume and destroy, the right (liberty) to modify, the right (power) to alienate, the right (power) to transmit, the right (claim) to security, the absence of term, the prohibition of harmful use, liability to execution, and residuary rules.[18] He further argues that anyone who has one of the first eight elements plus the right to security, any of this bundle of rights, that person has a property right and there are 4080 such combinations possible (mathematically calculated).

However, like Honoré, Becker argues that full ownership consists of all the elements at once in the same individual.[19]

On the other hand, unlike Honoré, Becker considers the right to destroy as one of the incidents of ownership. Furthermore, his theory focuses more on property as a relative concept, consisting of different property interests, with ownership as an absolute one. This concept, 'bundle of rights' is a dominant feature of the common law tradition, and will be used in the case studies chapters as a starting point for the analyses of the legal nature of specific digital assets. The following section will look at this theory.

[18] L Becker, 'The Moral Basis of Property Rights' in Pennock and Chapman (n2) 190-191.

[19] Ibid 192.

2.2.2. Bundle of rights theory

The bundle of rights theory permeates both American and English legal thought and practice, and it is adopted as a useful and flexible approach in our attempt to conceptualise digital assets in this thesis.

This theory is based on Hohfeld`s theory of legal relations as jural opposites (rights-no-rights; privilege-duty; power-disability; immunity-liability) and jural correlatives (right – duty; privilege - no-right; power – liability; immunity – disability), which define legal concepts, including property, as a set of these correlatives and relations.[20]

Penner notes that it is 'clearly dominant in the United States, where even the Restatement of Property begins with a Hohfeldian outline of rights and duties, and where the "bundle of rights" is regularly cited by courts in important property cases'[21], and that it is certainly prevalent in England as well. Lawson and Rudden, for example, refer to the law of property as providing an owner with 'a bag of tools'.[22] For Penner, this indicates that property 'is a concept without a definable "essence"; different combinations of the bundle in different circumstances may all count as "property" and no particular right or set of rights in the bundle is determinative.'[23] In this regard, he refers to Munzer's characterisation:

> *The idea of property-or, if you prefer, the sophisticated or legal conception of property-involves a constellation of Hohfeldian elements, correlatives, and opposites; a specification of standard incidents of ownership and other related but less powerful interests; and a catalogue of "things" (tangible and*

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[20] W N Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913) 23 Y.L.J. 16.

[21] *Moore v. Regents of the Univ. of Cal*., 793 P.2d 479 (Cal. 1990); *Keystone Bituminous Coal Assn. et al. v. DeBenedictis, Secretary, Pennsylvania Department of Environmental Resources, et al.* 480 U.S. 470 (1986).

[22] J E Penner, 'The "Bundle of Rights" Picture of Property' (1996) UCLA L. Rev. 43, 713.

[23] Ibid 724.

intangible) that are the subjects of these incidents. Hohfeld's conceptions are normative modalities. In the more specific form of Honoré's incidents, these are the relations that constitute property.[24]

Thus, the bundle of rights theory could be best presented and understood as a Hohfeldian-Honorian bundle of jural correlatives, opposites and incidents. This theory will be referred to in the case study chapters later in this thesis.

This brief discussion about the main features and incidents that different concepts, at the theoretical level, attribute to property and ownership has further illustrated the difficulties in trying to define and explore the notion. However, some common elements can be traced to all the theories, such as e.g. rights of use, and the rights to control, transfer, abandon and possess property. Therefore, further analysis will use these incidents to assess whether digital assets analysed in this thesis can qualify as an object of property.

2.2.4. Incidents of property objects

It is useful to define some terms that will be used throughout this thesis, namely, economic features of objects of property. These qualities would, arguably, qualify various objects as property. The list presented here is not exhaustive rather, only the most crucial features, those used later in this chapter, will be defined at this point. These are the following: rivalrousness, excludability, permanence (temporality) and interconnectivity. Later in this thesis, the discussion will be broader, especially when exploring distinct types of digital assets and attempting to apply these features to them (see e.g. section 3.3.1.).

Rivalrousness (subtractability) is an economic term, primarily relating to consumption and the physical quality of an object. It arises in situations ‘where one person’s use

[24] In Penner Ibid 724.

subtracts from the available benefits for others'.[25] In other words, it means that consumption cannot be common for these resources.[26] Most tangible objects are intrinsically rivalrous (e.g. food, clothing, most private goods), whereas most intangible ones are non-rivalrous (information, objects of intellectual property, but not domain names, radio spectrum, etc.). Related to this concept is a notion of excludability, meaning the individual's power to control the use of an object.[27] It usually depends on the property rights granted in order to enable a person to exclude others from the use of an object.[28] The two terms should not be confused, since, for instance, non-rivalrous objects can be excludable. An obvious example is intellectual property, mainly non-rivalrous, but excludable, since the law has granted an exclusive protection, a monopoly, to it. Here the valid question is the cost of excludability, and not the exclusion itself.

Persistence is another quality of property objects, both tangible and intangible. It does not mean permanence *per se*; it only implies a certain degree of stability.[29] On the other hand, theoretically, property rights have an indefinite duration, as opposed to intellectual property, whose duration is, still, time limited, conferring different terms of protection to certain kinds of intellectual property.

Interconnectivity, as another characteristic of objects in the real world, means that they can affect each other, 'by the laws of physics';[30] they are connected and can be perceived as such by senses, or more than two people can experience the same property at the same time.

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[25] C Hess and E Ostrom, *Understanding knowledge as a commons [internet resource] from theory to practice*, (MIT, 2007) 9, 352.

[26] D L Weimer and A R Vining, *Policy analysis* (5th ed. Longman, 2011) 72.

[27] Ibid.

[28] Ibid.

[29]See T J Westbrook 'Owned: Finding a Place for Virtual World Property Rights' (2006) MICH. ST. L.REV. 779, 782, 783.

[30] J Fairfield 'Virtual Property' (2005) 85 B.U.L. Rev. 1047.

Having defined these notions, mainly for practical reasons, as they will be widely used later in this thesis, the next section will identify the main distinctions between the conceptions of property in different legal systems, in an attempt to determine the main features of the concept.

2.3. Categories of property in common and civil law countries

After having shown the possible ways to define property and the primary features of the concept, this chapter will further attempt to demonstrate the main differences at conceptual and practical levels of consideration of property in two major law traditions, common and civil law. Only the most representative examples will be mentioned, in an endeavour to help understand the categorisation presented afterwards, and to find common themes and indicate some solutions for defining and categorising virtual assets and property as well. The chapter thus assesses which legal system would be more susceptible to the inclusion of new objects of property. The analysis of this distinction will especially be helpful in chapter 3 (virtual worlds case study), where a combined common-civil law solution will be introduced for the virtual worlds case study (see section 3.6.3.).

The differences between conceptions of property in the two major legal families could be explained through the historically and culturally conditioned viewpoint. Continental legal scholars prefer more clearly and coherently defined concepts and theories, almost a dogmatic approach. Thus, Bouckaert notes ‘continental legal science puts a much stronger emphasis on definitions and general principles than its Anglo-American counterpart. Continental jurists at one time identified this conceptual level of legal science as "legal dogmatic" or "legal theory."[31] And on the other hand, as Penner remarks, in the common law ‘The specialist fragments the robust unitary conception of ownership into a more shadowy “bundle of rights”.’ As a result, he claims, the law and legal theorists in common law systems no longer have one single, coherent concept of property.[32]

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[31] B Bouckaert ‘What is Property’ (1990) 13 Harv. J.L. & Pub. Pol'y. 775, 775-776.

[32] Penner, ‘The "Bundle of Rights" Picture of Property’ (n 22) 769.

Nevertheless, the differences and possible similarities between different property concepts have not been of much interest to comparative law and its scholars. Comparative law, as Van Erp notes, focuses on the law of obligations, because of the dominant elements of convergence, while property law has not been an area of great interest for comparative lawyers.[33] Furthermore, he argues that the comparative lawyers took for granted fundamental, historically rooted differences between civil and common law, considering that there is no possibility for any convergence.[34] Van Erp calls this approach to property law 'technocratic conservatism', 'a legal mentality that aims at preserving the status quo and that accepts changes only when these are completely unavoidable'.[35] However, he predicts shifts in this mentality, due to global market integration. He also notes that property law has never been as static as generally considered, giving examples of influences of case law in Germany and The Netherlands (transfer of ownership for security purposes) on the one hand, and changes in common law affected by statutes (Law of Property Act 1925).[36] The evidence that this view is probably sound are attempts at unifying private law at the EU level (see discussion below). In relation to Van Erp's prediction, it is suggested that the global nature of the internet and the increasing importance of digital assets will contribute to a change of mentality in the long term.

When discussing the difference between concepts of property between, broadly speaking, common and civil law systems, it is important to note at the outset that, within the EU, property is still subject to the national law of member states.[37] Thus,

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[33] See Van Erp 'Comparative Property Law' in R Zimmermann and M Reimann, eds, *The Oxford handbook of comparative law* (Oxford: Oxford University Press, 2006) 1044.

[34] Ibid 1044-1045.

[35] Ibid 1048.

[36] Ibid 1048-1049: here he argues that the Law has introduced *numerous clausus* principle in common law, limiting the number of estates in section 1.

[37] Article 345 (ex Article 295 TEC) 'The Treaties shall in no way prejudice the rules in Member States governing the system of property ownership.' The Treaty on the Functioning of the European Union, OJ C 83/47 30/03/2010.

the distinction between common and civil law conceptions is still in place, even if we disregard the US conception, which inherited and received the common law tradition, and currently mainly stands by the aforementioned bundle of rights theory.

There are, however, significant moves within the EU to harmonise aspects of national property laws, provided that we accept the argument that IP is property.[38] Notably, Article 118 of the Treaty on the Functioning of the European Union (Lisbon Treaty) calls for the 'creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union'.[39] There have been similar global attempts to harmonise intellectual property law, within WIPO, WTO, multilaterally and bilaterally, by different treaties and conventions.[40] Though this aim

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[38] The debate over whether IP is, in effect, property or a statutory monopoly and privilege is out with the scope of this thesis. For more on the rich academic debate see e.g. J Hughes 'Copyright and Incomplete Historiographies: Of Piracy, Propertization, and Thomas Jefferson` (2005-2006) 79 S. Cal. L. Rev. 993; M Kretschmer, L Bently and R Deazley 'The history of copyright history (revisited)' (2013) 5(1) W.I.P.O.J. 35; L Lessig, *Free Culture, How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (New York: The Penguin Press, 2004); M A Lemley and P J Weiser 'Should Property or Liability Rules Govern Information` (2007) 85 Tex. L. Rev. 783; M Rose 'Nine-tenths of the Law: The English Copyright Debates and the Rhetoric of the Public Domain` (2003) 66 Law & Contemp. Probs. 75; H L MacQueen 'The War of the Booksellers: Natural Law, Equity, and Literary Property in Eighteenth-Century Scotland' (2014) 35(3) J Legal Hist 231; 'Intellectual Property and the Common Law in Scotland c1700-c1850' in C W Ng, L Bently and G D Agostino (eds), *The Common Law of Intellectual Property: Essays in Honour of Professor David Vaver* (Hart, 2010) (Here the author clearly notes the historical distinction between property and IP and a privilege. In addition, and interestingly for this thesis, he identifies the protection of reputation and privacy as a basis for the development of the right to protect confidentiality, rather than the protection of one's property). In addition, an interesting view of IP being an example of the Scots law concept of 'exclusive privilege' has been offered by Black, see G Black 'A Right of Publicity in Scots Law' (PhD thesis, University of Edinburgh, 2009) 192 – 194, 205-210.

[39] Ibid.

[40] The most important international intellectual property guidelines involve four treaties: the Paris Convention for the Protection of Industrial Property of March 20, 1883 (as revised); the Madrid Agreement Concerning the International Registration of Marks of April 14, 1891 (as revised); the Berne Convention for the Protection of Literary and Artistic Works Sept. 9, 1886 (as revised); the Trade-Related Aspects of Intellectual Property Rights ('TRIPS'). Also relevant are the WIPO Copyright Treaty ('WCT') and the WIPO Performance and Phonogram Treaty ('WPPT').

is currently far from being achieved, it sheds important light on the possible intentions of unifying intellectual property.

Furthermore, at the EU level, there are efforts to unify contract law, or at least to create some legal core that would foster the Single Market and benefit consumers. The proposals ranged from a non-binding 'toolbox' that would improve consistency and harmonise member states' contract rules, to an all-encompassing contract or even civil code for the EU.[41] The process has gone as far as a proposal for a common framework for sales law,[42] which means that in short to medium term we may expect a European code of some kind, contract or civil, or even the harmonising of private law in general.

This section has identified only some of the general conceptual differences in conceiving property in common and civil law families. The following sections will demonstrate these disparities using some representative and specific examples.

2.3.1. Examples: differences and similarities

2.3.1.1. Remedies

Differences are notable in the case of property remedies, as well. In common law, the primary remedy is damages and not the return of the property like in civil law. Thus the law of tort (trespass and conversion) deals with this protection, rather than the law of property.[43] Discussing remedies in English law, Reid notes that the remedies for recovering the possession of the thing owned are provided by the law of obligations,

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[41] See European Commission 'Green paper from the commission on policy options for progress towards a European contract law for consumers and businesses' COM(2010)348 final, and for more see Zimmermann in R. Zimmermann and M. Reimann, eds, *The Oxford handbook of comparative law* (Oxford University Press, 2006), 540-577.

[42] European Commission 'Proposal for a Regulation of the European Parliament and of the Council on a Common European Sales Law' COM(2011) 635 final 2011/0284 (COD).

[43] M Bridge, *Personal Property Law* (3rd edn. Oxford University Press Clarendon Law, 2002) 47.

based on tort. However, even then, as he interestingly puts it: 'the law of obligations is the servant and not the master' because, in order to use the remedy provided by the law of obligations, one must first own the property.[44]

The thesis will not look at remedies in more detail. The example serves the purpose of illustrating the most notable differences between common and civil law with regards to property. Furthermore, remedies will be discussed in the context of analysis of property in information and personal data in chapter 4.

2.3.1.2. Tangibles and intangibles

One of the most relevant classifications of property objects for the purpose of this thesis is that of tangible and intangible property. Digital assets are inherently intangible, so this analysis will be relevant to each of the case studies.

While the common law recognised a variety of items and phenomena as things, making them susceptible to the property law concept, the same cannot be contended for in civil law. The German Civil Code restricts property to things, defined therein as tangible, and corporeal.[45] Consequently, an incorporeal thing does not exist in German private law and cannot be subject to the concept of ownership. This has been achieved through other legislation.[46]

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[44] K G C Reid 'Obligations and Property: Exploring the Border' (1997) Acta Juridica 225, 226.

[45] For more see E J Cohn, *Manual of German law* (Dobbs Ferry; Oceana Publications, 1968) 174-180.

[46] Trademarks: Markengesetz of 25.10.1994. BGBI. I S 1273; Patents: Patentgesetz of 16.12.1980. BGBI. 1981 I S. 1; Copyright: Urheberrechtgesetz of 9.91965. BGBI. I S. 1273; or see generally M J Raff *Private property and environmental responsibility: a comparative study of German real property law* (Kluwer Law International 2003) 191 – 193; or W Ebke and M W Finkin *Introduction to German law* (Kluwer Law International 1996) 227.

However, the protection of property offered by the basic law of the Federal Republic of Germany 1949[47], article 14, was extended by the Federal Constitutional Court[48], expanding the interpretation of this clause beyond the limits of the private law concept, for the meaning and context of the whole constitution. This created different property concepts in public, constitutional, criminal, and private law, as defined in BGB. Public property law, created administratively and constitutionally, violated some of the principles of the BGB, such as the one that property must be corporeal. In this way, electricity was recognised as property.[49] Furthermore, the constitutional property concept included IP rights, a claim for unemployment benefits, and bills of exchange.[50] This phenomenon is known as the theory of dualism of private and public property in German law.[51]

In French law, the word *biens* is used to designate both tangible and intangible property. The term is used in the Code Civil instead of *chose*, thing, to designate a value, rather than a thing itself.[52] Incorporeal things are considered movable property by prescription of law, but this category is not as broad as that of English common law (Article 527 French Civil Code).

English common law, on the other hand, has been quite flexible when applying the concept of ownership to intangibles, using the same principle as for tangibles. Thus, Maitland argues 'any right or group of rights that is of a permanent kind can be thought of as a thing…mediaeval law is rich with incorporeal things'.[53] As Lawson and Rudden

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[47] See A J Van der Walt, *Constitutional property clauses: a comparative analysis* (Kluwer Law International, 1999), 121 – 163.

[48] BVerfGE 51, 193 (Warenzeichen case) 1979 219 in Van der Walt, ibid 151.

[49] See Raff (n 46) 164 -165, or similarly Ebke and Finkin (n 46) 72, 73.

[50]See the leading case describing the constitutional guarantee of property: *Hamburg Dyke Case* (1969) 22 NJW 309 and Raff (n 46) 170 – 171.

[51] Raff (n 46) 164.

[52] J Bell et. al. *Principles of French law* (2nd ed. Oxford University Press 2008) 270.

[53] Quoted in F H Lawson and B Rudden, *The law of property*, (Oxford University Press, 2002) 82.

note this approach is still being used, as with terms such as 'owner of patent' or a mortgage.[54] Discussing rights as things, Reid argues that incorporeal assets and rights are already a part of a person`s patrimony and their importance has increased significantly. Thus, he concludes 'It seems odd to deny them the status of things'.[55] However, as seen in the case of information later in this thesis (section 4.2.2.), this does not necessary have to be the case. English law is still very reluctant to recognise property in information.

Prima facie, it seems that intangibility will not represent an obstacle to recognising digital assets as property, especially in English law. This, however, does not prove true in the case of information and personal data, where the analysis in Chapter 4 demonstrates that only US law occasionally show readiness to recognise certain types of information as property (section 4.2.2.). Consequently, this inconsistency serves as another argument against recognising digital assets as property.

2.3.1.3. Trust

Another peculiarity of common law, when compared to civil law systems, is the category of choses in equity and equitable ownership. This concept will be analysed for the purpose of showing some successful examples of legal transplants and cross-pollinations between legal systems. This will further serve as an argument to support some suggestions in this thesis (e.g. virtual user right, section 3.6.3.).

Historically, equity law was created by the Chancellor and the Court of Chancery, and unified by statute at the end of 19th century in order to make it applicable to one system

[54] Ibid.

[55] Reid (n 44) 231.

of courts. But, it is not clear as to whether these two systems really fused and this question for Penner 'remains controversial'.[56]

The most significant contribution of equity is the trust, existing when a fund of property is held by a legal owner, a trustee, with an enforceable legal obligation that it be used for another, the beneficiary.[57] Or, simply put, it is 'a flexible grouping of people and property in which one group of people (trustees), look after assets for another group (beneficiaries).'[58] Trustees are referred to as 'the legal owners', because the property is in their name, but they do not enjoy the benefit of the property. They simply manage the trust for the benefit of the real, equitable owners - the beneficiaries. Trust is usually formed by contract, but this is not a rule. In the case of implied or constructive trust in England no formality is needed for a trust to be established.[59] Apart from the constructive trust arising when a person deals with property in an 'unconscionable manner'.[60] Another type of constructive trust arises in the sale contracts, from the moment the price is paid, where it is deemed that a property is held in constructive trust for a transferee.[61]

The nature of trust, however, is still to be resolved. While proponents of Scott`s view argue that it is a branch of property law, Langbein considers trust a contract,

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[56] Penner, 'The "Bundle of Rights" Picture of Property' (n 22) 1332.

[57] For more and a comparison with choses in action see J Penner, *The idea of property in law* (Clarendon Press; Oxford University Press, 1997) 133-138.

[58] J Ball, 'The Boundaries of Property Rights in English Law', Report to the XVIIth International Congress of Comparative Law, (2006) (10)3 EJCL 1 8.

[59] See s. 53 (2) of the Law of Property Act 1925.

[60] See Millet LJ stating that a constructive trust 'arises by operation of law whenever the circumstances are such that it would be unconscionable for the owner of property (usually but not necessarily the legal estate) to assert his own beneficial interest in the property and deny the beneficial interest of another' *Paragon Finance plc v DB Thakerar & Co.* [1999] 1 All ER 400.

[61] See *Chinn v Collins* [1981] AC 533.

highlighting that the power and duties of the trustee are the default contract terms between the settlor of the trust and the trustee.[62]

Others, like Merrill and Smith, identify characteristics of both regimes in a trust, especially given the complicated position of the trustee who is subject to both property and contractual regimes. They put it succinctly: 'Thus, we can think of a trust as the transfer of in rem rights associated with ownership, subject to a set of in personam duties designed to fulfil the settlor's intentions toward the beneficiary.'[63]

Elements of both regimes, and particularly on the side of beneficiaries, are detected by Ball, too. She notes that, while the rights that a beneficiary has in relation to a trustee are personal in nature, the beneficiary also has real, property-like relations to third persons.[64]

Hansmann and Metteil are amongst those who argue that the principal contributions of trust are those related to property-like aspects. Here they refer to an interesting feature of property, explaining: 'When we say that assets are someone's property, we generally mean (among other things) that those assets are presumed available to satisfy claims of that person's creditors.'[65]

Thus, the most important contribution of trust law, in Hansmann and Mattei`s opinions, is that of arranging relations between the trust parties and third parties, including creditors, relations that cannot be easily dealt with by the rules of contract and agency law in civil law countries, at least not without significant transaction costs. The important feature of a trust is 'partition of a discrete set of assets', managed separately and capable of being a security to creditors, as a distinct entity.[66]

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[62] As set out in H Hansmann and U Mattei 'The Functions of Trust Law: A Comparative Legal and Economic Analysis' (1998) 73 N.Y.U. L. Rev. 434, 469-470.

[63] T W Merrill and H E Smith, 'The Property/Contract Interface' (2001) 101(4) Colum. L. Rev. 773, 844.

[64] Ball (n 58) 9.

[65] Hansmann and Mattei (n 62) 470.

[66] Ibid 466.

Unlike the Anglo-American tradition, where a dual system, that of common law and equity arose, the latter creating the concept of a trust, in civil law countries property law was predominantly developed by academic lawyers, based on the Roman law tradition. The central concept was the obligation, which framed trust-like arrangements,[67] like the Roman concept of *fiducia*, creating contractual, not property relations between parties.[68] However, trust as property, not obligation, would be contrary to the civil law doctrine of the unity of property, the *numerus clausus* principle mentioned later. This doctrine was developed after the French Revolution, regarding the division of property rights as a relic of feudalism.[69]

Nevertheless, an institution resembling trust can now be found in French law, too. That is *fiducie*, a trust-like institution, introduced in the French Civil Code by the Law of 19 February 2007, amending former articles 2011 to 2031 of the Civil Code. Although the definition from the article 2011 is similar to the common law concept,[70] it is only applied to relations *inter vivos*, which is not the case in common law. Furthermore, it has to be set explicitly, it is a formal contract and there is nothing like the implied or constructive trust in England discussed earlier in this section. Also, *fiducie* is not open to individuals, but only to institutions. Its nature is contractual, whereas English trust has a mixed nature, involving both contractual and property elements, as discussed above. Finally, and importantly, the most innovative aspect of this institute is that it is separate from the fiduciary's personal assets, which breaks

[67] Ibid 441.

[68] Ibid 443.

[69] Ibid 442.

[70] Article 2011 du Code Civil (loi du 19 février 2007) '*La fiducie est l'opération par laquelle un ou plusieurs constituants transfèrent des biens, des droits ou des sûretés, ou un ensemble de biens, de droits ou de sûretés, présents ou futurs, à un ou plusieurs fiduciaires qui, les tenant séparés de leur patrimoine propre, agissent dans un but déterminé au profit d'un ou plusieurs bénéficiaires.*'

the unitary conception of *patrimoine* (estate, all rights *in rem* and *in personam*)[71] in French law.[72]

This is an example of a legal transplant between common and civilian legal systems.[73] It shows once more that a useful legal concept, effective in a legal and economic milieu, can be exported and recognised in a different legal system that, at first glance, would not be susceptible to its reception. One of the reasons for introducing this concept is related to globalisation and the fact that companies were moving their assets to jurisdictions with more flexible and competitive legal instruments.[74] It confirms Watson's argument that transplanting is the most fertile source of development. Changes in many legal systems are the results of borrowing. According to Watson, the law is similar to technology, it is 'the fruit of human experience' and when a rule is invented by one nation, it can be appreciated and used for the needs of many other people.[75] However, since *fiducie* is not an exact or close replica of trust, with important features missing (e.g. post-mortem features), it cannot be seen as a very representative example, either, at least not yet.[76] Nevertheless, these law reforms have introduced a previously unimaginable concept into a civil law legal system which demonstrates potentials for cross-pollination between legal systems,

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[71] E Steiner, *French law: a comparative approach* (Oxford University Press 2010) 379.

[72] For more see Steiner Ibid 387- 389.

[73] 'Legal transplants – the moving of a rule or a system of law from one country to another, or from one people to another' A Watson *Legal transplants: an approach to comparative law* (Scottish academic press, 1974) 20.

[74] Other reasons were: to enable France to ratify The Hague Convention on the Law Applicable to Trusts and on Their Recognition; and to align French law in this area to the law of jurisdictions with French legal tradition, Quebec and Luxembourg, Steiner (n 71) 388, or see Watson ibid, asserting that a change in law and transplanting occurs due to many facts, amongst them, economic conditions play an important role; 97.

[75] Watson ibid 95, 100.

[76] See e.g. D Baudouin, 'Fiducie in French law' (2007) 2 I.B.L.J. 276, 276-281; P Matthews, 'The French fiducie: and now for something completely different?' (2007) 21(1) Tru. L.I. 17, 17-42.

and provides an argument for reform proposals suggested in this thesis (section 3.6.3.).

Having explored some differences in conceptions of property in the previous section, the following section will consider the main categories of property in common law, as the focus of this thesis.

2.3.2. Some consideration of categories of property in common law

The historical development of the property concept in common law systems is characterised by the progressive relativisation of this, initially, absolutely defined concept, and the dephysicalisation of the notion. This development has been soundly described and discussed by Vandevelde.[77] He describes the shift from Sir William Blackstone's eighteenth-century conceptio[78] to the nineteenth century, the exceptions to the physicalist and the absolutist elements of Blackstone's conception were incorporated into the law by courts, which sought to protect valuable interests as property 'even though no thing was involved'. The rationales for that Vandevelde sees in a theory of natural law and in the instrumentalist public policy of a state. This phenomenon, the protection of value rather than things, Vandevelde calls 'the dephysicalization of property'.[79]

Further developments lead to the complete abandonment of the Blackstonian conception of property by the beginning of the twentieth century. The greatest contribution to the establishment and formulation of a new conception was given by Hohfeld, in his theory discussed earlier.[80] Property rights were no longer seen as

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[77] K J Vandevelde,'The new property of the nineteenth century: the development of the modern concept of property' (1980) Buff. L. Rev. 29, 325.

[78] Ibid 330, see also supra sec. 1.1.

[79] Ibid 329.

[80] Hohfeld (n 20).

absolute, but limited, without favouring any set of rights over others. As Vandevelde usefully summarises, 'the particular combination of rights that comprised property in a given case would be decided according to the circumstances.'[81]

These developments have not been followed in the civil law family, where the concept of absolute ownership and the *numerus clausus* (finite number of property rights, prescribed in statutes/codes) principle is predominant, both in legal literature and statutory rules.[82] The principle of *numerus clausus* in German law means that the BGB limits the number, kind and content of rights *in rem*. The reason underpinning this principle is in order to make third parties able to assess risks arising from the absolute rights.[83]

In England, as McKendrick describes, property rights are predominantly made by judges and have not yet been incorporated into statutes (apart from the Law of Property Act 1925), unlike in civil law countries where property law forms a significant part of civil codes or statutes. However, it is not certain whether such a practice will be continued.[84] However, as he notes quoting Lord Wilberforce in *National Provincial Bank Ltd v. Ainsworth*[85] there is a 'continuing creative ability of the courts', to recognise the right or interest in the category of property if it is 'definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.'[86] As far as England is concerned, Lawson and

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[81] Vandevelde (n 77) 336.

[82] N. Horn et. al. *German private and commercial law: an introduction* (Clarendon Press; Oxford University Press, 1982).

[83] Ebke and Finkin (n 46) 230.

[84] See E McKendrick in E McKendrick and P Norman, editors, *Interests in goods* (Lloyd's of London Press, 1993) 41.

[85] [1965] A.C. 1175, 1247 – 1248.

[86] Lord Wilberforce in McKendrick and Norman (n 84) 40.

Rudden note that 'the English legislator - perhaps wisely – gives merely inclusive definition covering both objects and interests in them'[87].

Further, as is the case elsewhere as well, property in England historically developed from relations involving land and tangible assets, within the framework of common law (except a few statutes like the Law of Property Act).[88] Therefore, it had to evolve from precedents developed in relation to land, primarily to deal with complex chattels and intangible assets. The consequence of this was that the concept and the logic behind it 'was likely to be stretched too far'.[89] In addition, even the existing legislation did not help much in shedding light on the concept of property in England, since the Law of Property Act 1925 classifies property instead of defining it. Therefore, Ball rightly notes that 'The nature of property rights frequently has to be deduced from a piecemeal collection of *ad hoc* definitions, usually in case law, borrowing from a variety of sources.'[90]

Also, there is a general preference in English law to focus on remedies rather than principles, in that, 'in English law, the legal question tends to be not necessarily based on the definition of the property but whether something can be protected by the law or handled by the law, perhaps on death, by a transfer or in the law of theft.'[91] Thus in common law, there is 'a predominance of procedural law as means for the delivery of justice', whereas in France, conversely, codification from the early 1800s separated procedural law from the legal principles and substantive law. Therefore, if the French case can be brought within the definitions, then the procedural aspect of the case

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[87] Lawson and Rudden (n 53) 10, Theft Act 1968 c. 60, Law of Property Act 1925 c. 20, and The Trustee Act 1925 c. 19 (the widest definition, including real and personal property, estate shares and interests in property, debt, anything in action, nay other right and interest whether in possession or not. s. 68(11) However, Trustee Act 2000 c. 29, in s. 39 (1) completely abandoned the notion of property referring to assets as including 'any right or interest').

[88]'The logic of property law is bound up with tangibility.' Hudson 'The unbearable lightness of property' in A Hudson, ed *New perspectives on property law, obligations and restitution* (Cavendish: 2004) 9.

[89] Ibid.

[90] Ball (n 58) 4.

[91] Ibid 8.

and, disputably, justice, would follow.[92] English law, especially the law of equity, prefers procedural principles.[93] As Samuel argues, French law starts from a subjective right (*le droit subjectif*), and if there is a right, a remedy will be found, whereas English law starts from actions, and there has to be an action and a remedy in order to have an enforceable right.[94] The case law confirms this argument.[95]

In English law, property is divided into personal and real property. Real property refers to land, while personal is everything else. Personal property is residual in its nature, and, as Bridge argues, the 'somewhat formless nature of the subject' makes it capable of extension', both in respect of recognition of novel kinds of property and of its quantity'[96] Until the mid-19th century, personal property could not be recovered *in rem* (i.e. the property could not be retrieved as such), as was the case for real property and actions *in rem*.[97] Only a claim for monetary damages was allowed until the

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[92] This is according to the famous principle, accepted in French legal tradition 'ubi ius, ibi remedium.' (when there is a right, there is a remedy, too), see Ball ibid 8.

[93] Ibid.

[94] G Samuel 'Le Droit Subjectif' and English Law' (1987) 46(2) CLJ. 264, 264-286; or Bell (n 64) 7.

[95] See e.g. Sir Nicolas Browne – Wilkinson VC in *Kingdom of Spain v Christie, Manson &Woods Ltd*, observing: 'In the pragmatic way in which English law has developed, a man's legal rights are in fact those which are protected by a cause of action. It is not in accordance, as I understand it, with the principles of English law to analyse rights as being something separate from the remedy given to the individual. Of course, in quia timet proceedings You do not have, for example, to show that damage has occurred even if damage is a necessary constituent of the cause of action. It is enough to show that the defendant has an intention to do an act which, if done, will cause damage. But in my judgment, in the ordinary case to establish a legal or equitable right You have to show that all the necessary elements of the cause of action are either present or threatened.' [1986] 1 W.L.R. 1120, 1129 or also *F v Wirral MBC* [1991] 2 W.L.R. 1132 (CA).

[96] Bridge (n 43) 1.

[97] Note the possible confusion between the real and personal property and rights *in rem* and in *personam*. While the former are concerned only with property and thus defined only in common law systems, the latter concerns division of rights, differentiating between the rights against the whole world (*in rem*, property rights) and only against a particular person (*in personam*, contractual rights etc.).

Common Law Procedure Act 1854 (s. 78),[98] which enabled returns of the chattels detained as a primary remedy.[99]

The personal property further comprises chattels real (leasehold interests in land) and chattels personal. Chattels personal are divided into choses in action and choses in possession.[100]

Choses in possession are tangible, movable things (when they are a subject of sale, then they are considered goods), and more regularly referred to as chattels in general.[101]

Choses in action are a different type of intangible (incorporeal) property, residual in character as well. As Bridge argues, they pertain to what remains after eliminating the choses in possession (i.e. debts, goodwill, rights under an insurance policy, shares, bills of exchange and intellectual property).[102] The main characteristic of choses in action is that they can only be claimed by action, legal procedure, and not *in rem*, reclaiming possession.[103] Some scholars, as Hudson for instance, label choses in

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[98] Bridge (n 43) 2.

[99] S. 78 Specific Delivery of Chattels. 'The Court or a Judge shall have Power, if they or he see fit so to do, upon the Application of the Plaintiff in any Action for the Detention of any Chattel, to order that Execution shall issue for the Return of the Chattel detained, without giving the Defendant the Option of retaining such Chattel upon paying the Value assessed, and that if the said Chattel cannot be found, and unless the Court or a Judge should otherwise order, the Sheriff shall distrain the Defendant by all his Lands and Chattels in the said Sheriff's Bailiwick, till the Defendant render such Chattel, or, at the Option of the Plaintiff, that he cause to be made of the Defendant's Goods the assessed Value of such Chattel; provided that the Plaintiff shall, either by the same or a separate Writ of Execution, be entitled to have made of the Defendant's Goods the Damages, Costs, and Interest in such Action.' Common Law Procedure Act 1854 c. 125.

[100] 'All personal things are either in possession or in action, the law knows no tertium quid between the two.' The famous dictum of Fry L.J. in *Colonial Bank v Whinney* (1885) 30 Ch.D. 261, a view shared by the House of Lords on appeal: (1886) 11 A.C. 426.

[101] Bridge (n 43) 3.

[102] Ibid 4.

[103] *Choses in action* are 'personal rights of property which can only be claimed or enforced by action and not by taking physical possession' *Torkington v Magee* [1902] 2 K.B. 427, at 430,

action as ‘quasi-property’, a purely personal claim, recognised as property due to its transferability (the transfer pertains only to the right to receive something), and ‘separability’ (established by Penner and discussed earlier).[104]

Choses in action further divide into pure intangibles (e.g. debt, goodwill and copyright) and documentary intangibles (bill of lading, bill of exchange, promissory note, shares, insurance policy, etc.).[105] These categories fall under the group of common law property. In addition, there exists equitable property (i.e. trust), discussed more in section 2.3.1.3.

The example of the Californian Civil Code illustrates similarities with the English categories of property. The general division has been slightly altered and refers to real or immovable, and personal or movable property.[106] The general divisions and effects are still very similar, and the property law regimes share vocabulary and principles.[107] Some of the differences and exceptions will be emphasised on examples relevant to this thesis, such as property in information (see section 2.7.).

Choses in action are an interesting peculiarity of common law, for some authors representing ‘compromised forms of property.’[108] As Penner explains, the proprietary character of choses in action shows when ‘things go badly wrong’. Penner rather interestingly explains their ‘thinghood’: ‘It is not because they are alienable that they are ‘things’ of this kind. Rather, they are alienable because they are things.’ This means that they do not have a quality of thinghood, viz. alienability that would naturally qualify them as things. Rather, they have been recognised by law as things, arguably quite artificially, and the law has attributed alienability to these things. The classic example is debt, recognised as property in common law and assigned a feature of

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or ‘a thing which you cannot take, but must go to law to secure’ T. Cyprian Williams, ‘Property, Things in Action and Copyright’ (1895) 11 L.Q.R. 223, 232.

[104] Hudson (n 88) 23-30.

[105] Bridge (n 43) 6-9.

[106] California Civil Code s. 657.

[107] See generally David A. Thomas ‘Anglo-American Land Law: Diverging Developments from a shared History Part III: British and American Real Property Law and Practice: A Contemporary Comparison’ (1999-2000) 34 Real Prop. Prob. & Tr. J. 443.

[108] Penner, *The idea of property in law* (n 57) 107.

alienability, unlike in civilian law. Another example is intellectual property, which does not intrinsically have all the classical features of property (e.g. exclusivity, rivalrousness, corporality), but has been recognised as property and, arguably, put into this category.

The importance of finding the common elements and themes in civil and common law conceptions of property will be demonstrated further in chapter 3, where a solution based on both traditions will be suggested (section 3.6.3.). It is argued in this thesis that the legal borrowing Watson suggests is even more desirable on the Internet, with its blurred boundaries and jurisdiction issues.

2.4. Analysis

One could provisionally conclude that new forms of property could fit easier in some of the English categories (choses in action).

However, notwithstanding the rigid 1885 (in *Colonial Bank v Whinney*) categorisation of personal property in English law, many authors would argue that, unlike in civil law, common law property is capable of expansion and inclusion of new categories.[109] In support of this is Lord Wilberforce in the *National Provincial Bank Ltd v. Ainsworth* statement, cited in the previous section. Also, as Ball rightly notes, lack of a principle of unity of property in English law, lack of limitative definitions of property and the bundle of rights conception of property, make English law liberal and prone to fragmentation and the manipulation of property rights by lawyers.[110]

Nevertheless, nowadays theory no longer appears to reflect reality as the courts have

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[109] W G Friedmann, *Law in a Changing Society* (2nd edn. Penguin, 1972), 94: 'The common law is mercifully free of these distinctions [established by the codes] which artificially divide things that economically and sociologically belong together.', and K Moon 'The nature of computer programs: tangible? goods? personal property? intellectual property?' (2009) EIPR 396, 407.

[110] Ball (n 58) 4.

refused to create new forms of property in the last century.[111] In addition to the English example of confidential information, discussed in more detail later in this chapter, there is the case of electricity. Even legal recognition of full property rights for choses in action, which are recognised as property in English law (see discussion earlier in this section) has been denied on the grounds that this property is not tangible. Thus, in *OBG Ltd v Allan*[112], the House of Lords by a 3:2 majority denied the application of the tort of conversion to anything other than chattels. However, this is not the case in the US, where the courts in some states have abandoned this traditional view, and some information (e.g. fresh news, trade secrets) is considered property. This development will be discussed further in section 4.2.2.

2.5. Property rights v obligations

When discussing the concept of property one should inevitably refer to obligations, especially the law of contracts, as its correlative concept. This is particularly significant for this thesis, as most of the currently recognised rights of users in their digital assets are contractual (as demonstrated in the following chapters).

Most authors in common and civil law systems, based on the Roman law concepts, would use terms *in rem* and *in personam* when referring to property and obligations, respectively. In common law, the term obligations is rare and has come into more frequent use by courts and scholars only recently. Instead, common law jurisprudence refers separately to the notions of contracts, torts and unjust enrichment. There has been, as some argue, a reception of the obligations as a category in English law

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[111] E.g. confidential information (see infra sec. 4.2.2.) or electricity (‘electricity … is not capable of ownership’ in *Low v Blease* [1975] Crim. L.R. 513), or commentary in Moon (n 109) 406 - 407.

[112] [2007] UKHL 21.

where more judges and academics speak of them when addressing one of these three categories.[113]

Civilian lawyers would commonly use terms real and personal rights, a usage that should not be confused with that of real and personal property in common law (both real and personal property belong to *in rem* property rights in common law, the first pertaining to land and the second to everything else, as discussed in section 2.3.2.). Property rights, as rights *in rem*, are rights against the whole world, a potentially infinite number of persons, while contracts, rights *in personam*, according to the doctrine of privity of contract in common law, and statutory rules and theory in civil law, bind only parties to the contract, not the third parties.[114] Thus, rights *in rem* are often referred to as absolute rights, whereas rights *in personam* are relative; their effect pertains only to the contract parties (with some exceptions).[115]

In an attempt to differentiate rights *in rem* from rights *in personam*, Reid suggests three unique features of real rights: real rights concern things; they can be enforced against the whole world, and the obligation correlative to a real right is negative (to refrain from doing something).[116] American authors Merrill and Smith identify 'four differentiating features of in rem rights' that could be subsumed under three elements identified by Reid.[117] In civilian systems, the border between property and obligations is rather clear. This clarity can be attributed to the *numerus clausus* principle, a

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[113] See G H Samuel and J Rinkes, *Law of obligations and legal remedies* (2nd ed. Cavendish Pub. 2001) 252, 254, 262 – 269.

[114] Bridge (n 43) 26; or Samuel ibid 364-367; or *Barker v. Stickney* [1919] 1 KB 121. 132; *McGruther v. Pitcher* [1904] 2 Ch. 306; *Taddy v Sterious* [1904] 1 Ch 354.

[115]For a civilian perspective see Ebke (n 46) pp 228, 229, or for mixed and common law systems see P Sutherland and D Johnston 'Contracts for the benefit of third parties' in R Zimmermann, D Visser and K Reid (eds) *Mixed Systems in Comparative Perspective* (Oxford, 2004) 208 – 239.

[116] Reid (n 44) 227.

[117] '(1) in rem rights apply to a large and indefinite class of dutyholders; (2) in rem rights attach to persons only insofar as they own particular "things" and not otherwise; (3) all persons hold in rem duties to a large and indefinite class of holders of such rights; and (4) in rem duties are always duties of abstention rather than performance.' T.W. Merrill and H. E. Smith (n 63), 773-852, 789.

principle which states that all the real rights are enumerated and defined in codes or statutes and parties cannot invent new rights or modify existing ones (with the limitations discussed in previous sections).

Thus, rights appearing in statutes in civilian systems as real rights (ownership, usufruct, securities, and servitudes) are property rights, while others are obligations.[118] Obligations, in civil law countries, therefore, have a residuary nature, consisting of what is left after deducting the real rights. In Reid's opinion, there are also categories of rights which are hard to classify, bearing in mind, on the one hand, their affinity with both real and personal rights (lease), and, on the other, their affinity with neither (trusts or intellectual property). He continues developing his thesis saying that for a trust it is possible to attempt classification using the categories of real and personal rights, but for intellectual property classification is impossible and thus mainly abandoned by authors.[119]

From the economic perspective, discussing the issue of costs in relation to property rights and obligations, Merrill and Smith argue that 'information costs are key to understanding the features of a system of property rights.' [120] The advantage of property rights is that they enable low-cost identification and definition of resources, in the case where there is a large number of potential claimants to resources, thus these *in rem* rights are governed by 'bright-line rules that allow large and indefinite numbers of people to identify owned resources at low cost.' [121] Obligations, on the other hand, are regulated by more flexible rules 'that minimize the costs of tailoring rights and obligations to each particular situation'.[122]

Crucially for the purpose of this thesis, property differs from contracts in that it is always transmissible to heirs on the owner's death. All property, personal and real, corporeal and incorporeal, to name but a few kinds (see discussion about differences

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[118] Reid (n 44) 228.

[119] Ibid 229.

[120] Merrill and Smith (n63) 833.

[121] Ibid 793.

[122] Ibid 798.

between legal systems in section 1.3.1.), forms inheritance, an estate of a person, and transmits by the rules of succession to the deceased's heirs (more details will be discussed in chapter 3). In the UK, for instance, 'a person's estate is the aggregate of all the property to which he is beneficially entitled'[123]. Or, in the US, 'probate assets are those assets of the decedent, includible in the gross estate under IRC § 2033, that were held in his or her name at the time of death.'[124]

Conversely, obligations in principle do not persist on demise. In common law jurisdictions, purely personal obligations 'die with a person'.[125] This position, however, has been revised and most of the personal rights of action arising from torts survive on death, according to the Law Reform (Miscellaneous Provisions) Act 1934. The only one that would not persist is defamation. As for contractual rights, personal contracts (e.g. employment contracts, contracts between an artist and a person commissioning him) will be discharged on death, unless there is an opposite provision in the contract.[126] A contract which is not personal in nature is not discharged upon death,

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[123] S. 3 Wills Act 1837 c. 26 ('It shall be lawful for every person to devise, bequeath, or dispose of, by his will executed in manner herein-after required, all real estate and all personal estate which he shall be entitled to, either at law or in equity, at the time of his death...'), this Act does not extend its effect to Scotland; sec 5 (1) Inheritance Tax Act 1984 c. 51, applicable to England, Scotland, Wales and Northern Ireland; similarly Succession (Scotland) Act 1964 c. 41 in s/ 32 defines estate as property belonging to the deceased at the time of death.

[124] J Darrow and G Ferrera 'Who Owns a Decedent's E-Mails: Inheritable Probate Assets or Property of the Network?' (2006) 10 N.Y.U. J. Legis. & Pub. Pol'y Vol. 281; see also e.g. Sherrin et al.: 'A will can only dispose of property, or an interest in property belonging to the testator at the time of his death, except insofar as the testator has a testamentary power of appointment over the property. Any disposition of property in which the testator has never had an interest or of property in which he had an interest at the date of his will but has since disposed of in his lifetime must fail.' in L McKinnon "Planning for the succession of digital assets" (2011) 27(4) C.L.S.Rev. 362, 362–367.

[125] Principle '*Actio personalis moritur cum persona*' in *Beker v Bolton* (1808) 1 Camp. 439; 170 ER 1033, but The Law Reform (Miscellaneous Provisions) Act 1934 c. 41 (as amended), revised the rule mandating that all personal rights will survive against and for the benefit of the estate, with the only exception of defamation and claim for bereavement; for the comparison between the US and German perspective, see e.g. H Rosler `Dignitarian Posthumous Personality Rights—An Analysis of US and German Constitutional and Tort Law´ (2008) 26 Berkeley J. Int'l L. 153.

[126] See *Farrow v Wilson* LR 4 CP 744, 746.

no matter whether it was broken or not, according to the reform mentioned above, it will survive for the benefit of the estate.[127] A personal representative stands in the position of the deceased, without being a party to the contract.[128] In French law, with the notion of *patrimoine*[129], comprising a person's rights and liabilities, all rights and liabilities pass on to the heir(s), in a way that they stand in the position of the deceased.[130] Similar to English common law, in French law strictly personal contracts (either by the agreement of the parties[131] or the nature of the contract[132]) end on death.[133] The same is true in Germany.[134]

Despite the differences presented, it has been noticed that there is a tendency of weakening of the centrality of property rights to the advantage of contracts, torts or trusts in England. This tendency goes as far as to call for awarding equal protection to personal rights and property rights.[135] An obvious example of this is the statement of Lord Nicholls in *Attorney – General v Blake*

> *Property rights are superior to contractual rights in that, unlike contractual rights, property rights may survive against an indefinite class of persons. However, it is not easy to see why, as between the parties to a contract, a violation of a party's contractual rights should attract a lesser degree of remedy*

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[127] See Law Reform Act s 1(1) and *Sugden v Sugden* (1957) P 120.

[128] *Beswick v Beswick* (1966) Ch 538, or for commentary about the contracts and succession see A R Mellows, *The law of succession* (4th ed, Butterworths, 1983) 295 – 296.

[129] The place where property and obligations meet, similar to the concept of estate in English law. Also, since choses in action comprise contracts, the parallel could be found in English law, but as some note, this theory is not very developed. B Nicholas, *The French law of contract* (2nd ed. Clarendon Press; Oxford University Press 1992), 29, 30.

[130] For more see M L Levillard 'France' in D J Hayton, ed, *European succession laws* (2nd ed. Jordans 2002) 219.

[131] Code civil art 1122.

[132] Ibid art 1795, 2003.

[133] Or for more see Nicholas (n 129) 172.

[134] K Kuhne et al. 'Germany' in Nicholas ibid, 244, 257.

[135] See D Pearce 'Property and contract: where are we?' in Hudson (n 88) 109.

than a violation of his property rights...it is not clear why it should be any more permissible to expropriate personal rights than it is permissible to expropriate property rights.[136]

In response to this tendency, some authors suggest an even more radical solution, proposing a unified civil remedy, for property, contracts and trust, invoking the approximation of the main categories of private law.[137] To support this, they point to an increasing willingness of courts to use 'the full armoury of remedies' in English common law.[138] In the recent case of *Manchester Airport plc v Dutton,* for instance, the proprietary remedy was granted to the non-owner. The company hired by the owner to conduct clearing works on the land requested repossession (ejectment) from the demonstrators who occupied the land. The demonstrators claimed that the company was not entitled to this remedy since they did not have a title of possession. A majority of the Court of Appeal, however, held that the company had a contractual right and was entitled to this remedy. The situation would look very different in the civil law systems, where a clearer division between *in rem* and *in personam* rights and remedies exists, and thus only the owner could claim an *in rem* remedy.[139] Some argue that, due to the fact the English law never actually developed proprietary remedies, i.e. restitution, vindication, and uses torts for protecting property (trespass, nuisance and conversion), it does not have such a strict division between real and personal rights, property and obligations.[140] Recognising the unclear picture in respect of remedies applied, Samuel argues that perhaps, the notion of obligations

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[136] [2001] 1 AC 268. 283.

[137] See Pearce (n 135) 109.

[138] Ibid 116; another example is *Manchester airport plc v Dutton* [1999] EWCA Civ 844, [2000] QB 133, where the court allowed a person to use a proprietary remedy to repossess land belonging to another only on the basis of a contractual relation.

[139] For a commentary see G Samuel, *Understanding contractual and tortious obligations* (Law Matters 2005) 110, 111.

[140] Ibid 6.

cannot be imported into English law, which has a different reasoning in respect to the law of things than Roman or Continental law.[141]

Others, conversely, argue that the two legal systems in Europe could be brought closer. Van Erp, for example, proposes a more flexible *numerus clausus* '*quasi-numerus clausus'*, where parties have more freedom to shape property rights, and under certain strict conditions, are given the freedom to create new property rights. In his opinion, these rights could be effective against certain interested third parties, but not the whole world. This, according to him, would make property law a 'borderline law, a legal area in which traditional property law is further developed through contract and tort law.' Even more radically, Van Erp asserts that the trend towards relaxation and flexibility of property rights 'is a *conditio sine qua non* for the development of property law in an era characterised by regional and global economic integration, with its resulting osmosis between national, European and global property law.'[142] This trend would also be helpful for settling the legal nature of the new types of assets, such as digital assets.

In conclusion, recognising an object or phenomenon as property brings some general benefits to the rightsholder. These advantages include: *in rem* effect against the whole world and not only between parties to a contract; remedies applicable to property (discussed in section 2.5.); and, importantly for this thesis, the possibility to transmit it on death (with reservations discussed above).[143] Regarding the last element, as we will demonstrate more in the next chapter, if the environment is extensively regulated by contracts (e.g. terms of service of the Internet developers and service providers), which are strictly personal or explicitly forbid transmission on death (see *Elsworth* case in section 4.1.1.), pursuant to aforementioned rules, they could not be transmitted on death. Therefore, if their social and economic value is such that

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[141] Ibid.

[142] Van Erp (n 45) 21, 22.

[143] e.g. Honoré (n5), Becker (n18), or 'The essential feature of property is that it has an existence independent of a particular person: it can be bought and sold, given and received, bequeathed and inherited, pledged or seized to secure debts, acquired (in the olden days) by a husband on marrying its owner.' *OBG v Allan* [2007] UKHL 21; [2008] 1 A.C. 1 at [309].

transmission on death is desirable, the property regime would be more suitable. This is, nevertheless, a provisional conclusion, dependent on the findings in the following chapters, where the nature and value of individual digital assets are discussed. Each of the chapters will either confirm or reject the proposition that digital assets can be considered property, and therefore normally transmitted on death as any other form of property.

2.6. Theoretical justifications for property

A theory of property could be conceived in many ways. It can be defined as an attempt at a normative justification for allocating property rights at all or in a particular way (detecting which human interests are relevant to a particular way of allocation), it could provide reasons for allocating resources in a certain way, or it can specify the content of property rights at various levels of generality.[144] Similarly, Becker identifies three levels of property justifications: *general* – whether there should be property rights at all; *specific* – why there should be a specific sort of property right, and *particular* – why a particular person ought to have a particular property right in a particular thing.[145] The discussion in this thesis will mainly relate to the specific level of justifications. In other words, it will mainly be attempting to use normative theories to ascertain whether property in digital assets can be asserted in particular cases, e.g. emails, social network profiles et al.

The justification for property as a basis for normative and social action can be traced to the works of most of the great philosophers and social thinkers, from the great

[144] See G. S. Alexander and E. M. Peñalver *An Introduction to property theory* (Cambridge University Press 2012) 6.

[145] L C Becker *Property rights: philosophic foundations* (Routledge and Kegan Paul 1977) 23.

Greek authors (Plato and Aristotle),[146] Roman doctrine and law[147] to natural law scholars, utilitarians, liberals, socialists, to name but a few.

It is important to note at the outset that, though these theories will not be elaborated further here, key Greek property concepts were used as a basis for later discussion about property and many thinkers used them as a starting point for their theories. Thus, the idea of natural law was developed by the Greeks, evolved during the Roman period[148] and advanced throughout the Middle Ages, the Enlightenment and in modern theories.[149] The natural rights theory considered individual rights derived either from the laws of God, nature or reason. It has been incorporated into the American Declaration of Independence of 1776 (second sentence: 'We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.', and the French Declaration of the Rights of Man and of Citizens of 1789, Article 2: The aim of all political association is the preservation of

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[146] For instance, Aristotle's definition of property provides that something 'is 'our own' if it is in our power to dispose of it or keep it.', for more see A Mossoff, 'What is Property? Putting the Pieces Back Together' (2003) 45 Ariz. L. REV. 371, 391; Plato and Aristotle attempted to identify a perfect form of property, speculating about human nature in its relation to property. In Plato's theory and division between classes as set in *Republic* and *Laws*, he entitles only the lowest class with property (farmers, artisans and merchants), for the purpose of sustaining the community; Aristotle, in Book VII of the *Politics*, describes the ideal state as the one where half of the land is common, worked by publicly owned slaves and the other half private, worked by privately owned slaves. The difference between Plato and Aristotle was that, the former was a communist when it came to property while the latter defended private property. See e.g. R Schlatter *Private property: the history of an idea* (Allen and Unwin 1951) 9-21.

[147] Roman law did not define dominion in itself but the closest definition that modern commentators infer from the Roman legal texts indicates that use, rather than exclusion, was their central concern. Roman law scholar Barry Nicholas notes that there is no Roman definition of ownership, but there are Romanistic ones, usually emphasising enjoyment, and adapting usufruct by adding the right of abuse—*ius utendi fruendi abutendi*. In Mossoff (n 146) 391-392.

[148] Defined in Cicero's Republic or Institutes of Justinian, for more see Schlatter (n 146) 21 – 33.

[149] For more see A Ryan *Property* (Open University Press 1987) 61-70.

the natural and imprescriptible rights of man. These rights are liberty, property, security, and resistance to oppression.'

It is not within the scope of this chapter to discuss these theories in depth. The aim is to indicate the most relevant theories that could serve as a basis for later discussion about possible justifications for perceiving digital assets as property.[150]

These theories could all be brought under the umbrella of three main groups, widely accepted and used, both in theory and practice. These groups of theories for justifying private property are utilitarianism, the labour theory, and the personhood theory (with the theory of human flourishing as, arguably, its subset).[151]

2.6.1. Utilitarian theories

The background assumptions of the utilitarian theory are that natural resources are scarce, men are demanding and of limited altruism, and labour is disagreeable and unpleasant. Therefore, there is a necessity to devise ways to make nature yield as much as she can, to be used in a way beneficial to the community. This, according to utilitarian theory, cannot be done without rules of property, since some will try to take the fruits of other men's efforts if they are not prevented. However, in the view of some authors, this argument does not readily distinguish between the need for property and the need for private property, since it is not certain whether e.g. capital would be best served in the hands of families or individuals.[152]

The principal exponent of the utilitarian justification of property, Jeremy Bentham, continued on the path traced earlier by Hume, who introduced the principle of utility,

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[150] For a sound overview on some of these theories, concentrating mainly on the natural law ones, see S Buckle, *Natural law and the theory of property: Grotius to Hume* (Clarendon Press; Oxford University Press, 1991), or a discussion on Grotius, Pufendorf and Locke's theories in relation to the bundle of rights and exclusive rights theory in common law scholarship, see Mossoff (n 159).

[151] Becker (n 145) 99-101 and Harris (n3) 168.

[152] See Ryan (n 162) 56.

arguing that due to the selfish nature of men, and limited natural resources, it is useful to respect the right of others in order to sustain our own and promote our happiness[153].

In 1789 Bentham coined the term utilitarianism and introduced the notion of a 'felicific calculus'[154]. This is the main principle of utilitarianism, looking for 'the greatest good for the greatest number'[155] concentrating on the welfare approach to utility. This theory is, along with the labour theory, frequently used as justification for tangible and intangible property in the common law systems, especially in the US (by courts, academia and even the Constitution, see discussion infra in this section).[156]

The underlying assumption is that people would create socially desirable objects only if granted appropriate incentives, some exclusive right, i.e. property rights so that 'free riders' do not enjoy the fruits of someone else's labour. Further, the theory assesses the goodness or badness of consequences regarding their tendency to maximise utility or welfare, where welfare is the maximisation of total net pleasure.

For Bentham, the nature of utility is individual, hedonistic pleasure. The problem that would arise in trying to maximise perverse pleasures, according to this theory, was solved by Mill who classified them into higher and lower pleasures, giving more weight to higher pleasures when assessing decisions according to the felicific calculus. Hence his famous statement that 'It is better to be a human dissatisfied than a pig satisfied.'[157] If the decision concerns more than one person, the solution according to Bentham is to aggregate utility, to add up total net pleasure enjoyed by all the individuals in the group. This principle has been widely criticised on the grounds that

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[153] See Schlatter (n 146) 239 – 242.

[154] J Bentham, *An Introduction To The Principles Of Morals And Legislation* (first ed. 1789, J.H. Burns and H.L.A. Hart eds., Athlone Press 1970) 12-13.

[155] Ibid 12,13.

[156] See also commentary in Alexander and Peñalver (n 144) 11.

[157] J.S. Mill 'Utilitarianism' in A. Ryan ed *Utilitarianism and other essays* (Penguin Books 1987) 260.

it lacks sensitivity to unequal distribution.[158] Therefore, his principle would be satisfied if there is added total pleasure and only small elite enjoys it.

When applied to the justification of property, this theory argues that people need to individually acquire, possess, use and consume some things in order to achieve a reasonable degree of happiness. Security in possession and use of things is impossible unless enforced, and unless modes of acquisition are controlled. The need for such control and enforcement amounts to the administration of a system of property rights, because of insecurity in possession and use, and uncontrolled acquisition of the goods, render individual achievement of a reasonable degree of happiness impossible. Therefore a system of property rights is necessary.[159]

Based on the assumptions of the utilitarian theory, mainly in the US, the economic theory of property rights was developed. Many of these theorists refer to themselves as *wellfarists*, too. In response to the Benthamite individualist conception of pleasures, contemporary theorists adopted a weaker concept of goodness, the satisfaction of preferences, rather than pleasures in general. The idea is to filter for worthy and reasonable preferences, so that, in contrast to Bentham's conception, by concentrating on individual preferences, whatever they might be, later theorists tried to mitigate the absoluteness of a pleasure, bringing it down to a mere preference, and only those worthy and reasonable, usually measured within a group rather than at the individual level. However, most of these theorists focus on the satisfaction of likely consequences and not on the actual consequence of the decision being evaluated.

In modern theory, the closest to Bentham's principle of aggregated utility is the Kaldor - Hicks criterion of efficiency.[160] According to this criterion, a social decision is superior to alternatives if the people who benefit from the choice gain enough that they could, hypothetically, fully compensate those individuals who lose out from it such that the

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[158] See Alexander Peñalver (n 144) 14.

[159] Becker (n 145) 57 – 58.

[160] K Nicholas 'Welfare Propositions in Economics and Interpersonal Comparisons of Utility' (1939) Economic Journal 49, 549–552.

losers consider themselves no worse off than they were before. Similar is the Pareto principle stating that a social choice is good if it makes at least one person better off without decreasing utility for anyone else. [161]

The biggest problem with assessing these principles is the gathering of necessary data. These methods vary from assessing the amount people are willing to pay to satisfy their preferences, to conducting surveys and other empirical research. Thus, Alexander rightly argues that the value of any utilitarian prescription will only be as good as the empirical information on which it is based.[162]

Further, modern economic theories of property, based on Benthamite assumptions, focus on an explanation of property in terms of economic factors, such as the efficiency achieved on the market and are not normative like utilitarianism, but rather explanatory. [163] In the best-known version of these theories, the inefficiency of common property is attributed to the tragedy of the commons. The 'tragedy of commons' is well-known and widely built upon concept in the US, created by Garrett Hardin.[164]

A tragedy of the commons is a situation appearing when too many owners have a privilege to use a resource, and no one has a right to exclude another. This leads to overuse and depletion of the resource. The theory is based on four assumptions: a community made up of rational actors who aim to maximise their individual material gain; a resource is rivalrous, i.e. one who uses a resource progressively diminishes or degrades the remaining supply of the resource; users can keep all the benefits while costs are borne by all of them; use of resource is unregulated and open to all.[165]

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[161] Alexander and Peñalver (n 144) 14.

[162] Ibid 15, also Becker (n 145) 68.

[163] For more see Ryan (n 157) 103-1152.

[164] G Hardin 'The Tragedy of the Commons' (1968) 162 Science 1243, 1243-1248.

[165] Alexander and Peñalver (n 144) 28.

On the other hand, as a critique, a theory of 'tragedy of the anticommons' appeared, introduced by Michael Heller[166]. It is defined as a situation when 'multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to underuse - a tragedy of the anticommons.'[167] The example he uses are empty storefronts in transitional Moscow as opposed to metal kiosks appearing widely in the same areas. He argues that the underuse in this example is caused by an inappropriate initial endowment of property rights, where multiple owners were assigned rights to exclude others, and no one had a right to control the resource individually. Thus, he suggests, rather than allocating rights, bundles of rights should be allocated to individuals in order to enable more efficient control of a resource. Another example is intellectual property rights, where competing and restrictive patent rights in biomedical and pharmaceutical research, for instance, could disable introduction of useful and cheaper products to the market.[168]

A similar theory to that of the tragedy of commons had been put forward by Demsetz, based on Blackstone's theory. It describes the invention of property as a response to scarcity. He illustrates his theory through the case of Native American hunters in the Hudson Bay area during the early colonial period, when the Europeans' demand for furs created immense pressure to capture furred animals. Consequently, the natives began to overhunt the common grounds, each hunter imposing 'external' costs on the others, since all needed to deploy more hunting effort to catch the rare animals. Therefore, according to Demsetz, these indigenous hunters realised they could prevent overhunting by turning their common hunting grounds into private property. Once they had done so, he tells, the individual owners appropriated wildlife resources on their respective territories, and the private hunting grounds became productive

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[166] M A Heller 'The Tragedy of the Anticommons: Property in the Transition from Marx to Markets Reviewed' (1998) 111(3) Harv. L. Rev. 621, 621-688.

[167] Ibid 624.

[168] M A Heller and R Eisenberg, 'Can Patents Deter Innovation? The Anticommons in Biomedical Research' (May 1998) 280 Science 698, 698–701.

again. In Demsetz's more technical economic terms, property rights enabled people to 'internalize externalities.'[169]

The utilitarian justification is, understandably, and having in mind dominant legal and political culture, most accepted in the US and countries that embrace liberal capitalist values. Thus, even the US Constitution in Article I, Section 8, Clause 8 says that the purpose of protecting IP rights is 'to promote the Progress of Science and useful Arts'[170], which is a utilitarian concept. Moreover, the US courts in their decisions often use this justification, in deciding IP-related cases.[171] This theory will be utilised in the following chapters, where the utility of recognising digital assets as property will be assessed.

2.6.2. Labour theories

Labour theory was introduced and developed by John Locke. Locke has had the biggest influence on property theories in English-speaking countries, and his theory is often associated with libertarians.[172] His theory is mainly elaborated in Chapter five of the Second Treatise of Government. Macpherson in the forward to the 1980 edition of the Second Treatise observes that nobody had made a more persuasive case for unlimited property rights than Locke, defending the limited constitutional liberal state, asserting that 'no one has come even near his skill in moving from a limited and equal

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[169] H. Demsetz, 'Toward a Theory of Property Rights*'* (1967) 57 Am. Econ. Rev. 347, 347-359.

[170] Article I Section 8 | Clause 8 - [The Congress shall have power] 'To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.' This clause is known as the Patent and Copyright Clause, for more see I Donner 'The Copyright Clause of the U. S. Constitution: Why Did the Framers Include It with Unanimous Approval?' (1992) 36 (3) Am. J. Legal Hist. 361, 361-378.

[171] *See e.g*. *Mazer v. Stein*, 347 U.S. 201, 219 (1954); *New York Times Co. v. Tasini*, 533 U.S. 483, 495(2001); *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co*., 324 U.S. 806, 816 (1945).

[172] Alexander and Peñalver (n 144) 35.

to an unlimited and unequal property right by invoking rationality and consent' and thus providing a justification for a liberal capitalist state conception of property.[173]

Locke's central property thesis is that 'whatsoever (man) removes out of the state that nature hath provided and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property.'[174] Before asserting this, Locke starts elaborating his intention to show how men could have property in something that 'God gave mankind in common' and all that without any explicit consent from others, the commoners.[175] Further, he claims that in order to make use of natural resources (in his example the fruit or venison) for 'the best advantage of life, and convenience' it is necessary to appropriate them 'that another can no longer have any right to it'.[176] The justification for appropriation lies in Locke's claim that everyone has property in his or her own person, consequently in their labour, 'the work of his hands'. Therefore, whatever one removes from commons and mixes his labour with, ceases to be held in common and becomes his property.[177] This is not, however, without any limitations.

Locke's famous principle of waste limitation is the requirement that the labourer is limited to 'as much as anyone can make use of to any advantage of life before it spoils.'[178] Becker defines it as 'why not?' argument, meaning that a labourer has property rights if he produces something by his labour, and it is not against moral requirements for the labourer, and finally, other members of society do not incur loss from being excluded from enjoying the fruit of labour.[179]

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[173] Macpherson in J Locke *Second treatise of government, Essay concerning the true original extent and end of civil government* (first published Crawford Brough 191; Indianapolis, Ind. : Hackett Pub. Co. 1980, with the preface by C. B Macpherson) XXI.

[174] Locke *Ibid* § 27, 19.

[175] Ibid § 25, 18.

[176] Ibid § 26, 19.

[177] Ibid § 27.

[178] Ibid 56.

[179] Becker in Pennock and Chapman (n17) 193.

The final limitation is known as Locke's 'enough and as good' proviso, meaning that there should be enough and as good left in common for others after appropriation. Note, however, that Locke revises these limitations when writing of the introduction of money as property when all three limitations were removed, spoilage, enough and as good and mixing the labour, justifying unlimited private property.[180] Money clearly does not spoil, so the first limitation is removed.[181] The second limitation, the enough and as good, is abandoned with the development of commerce and the consent to use the money. Locke explains it referring to the value of appropriated and cultivated land, which is as least ten times more than the other, and thus, even if there is not enough land left for others, there is *produce* for everyone.[182] The advent of commerce then induced men to appropriate more and exchange the surplus for money, 'beyond the use of his family'.[183]

Penner criticises Locke's theory on the grounds that, based on the notion of consent, it does not make a real difference between contracts and property. Moreover, the theory is flawed according to him, since it presupposes one's right to control, or the ability to act freely, which is not always the case (the problem of slavery, or ownership of goods created by employees).[184]

Nozick offered one of the most famous critiques of Locke's theory. It is interestingly summarised in this widely-cited quote:

> *Why isn't mixing what I own with what I don't own a way of losing what I own rather than a way of gaining what I don't? If I own a can of tomato juice and spill it in the sea so that its molecules (made radioactive, so I can check this)*

[180] Macpherson in Locke (n 187) XVII.

[181] Locke ibid §37.

[182] Locke § 37, commentary in Macpherson XVII.

[183] Ibid § 48.

[184] Ibid 187-188.

mingle evenly throughout the sea, do I thereby come to own the sea, or have I foolishly dissipated my tomato juice?[185]

Becker, for instance, shares this view[186], whereas Alexander, however, responds to this objection using the example of soup and tomato juice. In that example, there is only a little water taken from the stream, and tomato juice adds much more value. A further objection Alexander makes is that of collective labour, which is usually the case of how things are being produced.[187]

Another problem with this theory is its application when the common is already appropriated. Throughout history, it has been used as a justification for various kinds of property objects, but many authors disregarded the fact that Locke's theory applies only to the justification for things appropriated from commons.[188] Locke's primary goal was to justify the appropriation of Native American land. He made it quite clear that he was speaking of the state of nature and not of his contemporary society.[189] This can be clearly seen in his example of the commons in England, where the common was created by 'the law of the land' and to be used by all countrymen, who already have their property and participate in commerce. Hence, no one can appropriate this land without consent as it is the case 'in the beginning and first peopling of the great common of the world'.[190] This objection is particularly relevant to the discussion on digital assets, as it is extremely difficult to identify the relevant commons there.

As hinted above, Locke's work has been used by a variety of scholars in efforts to justify diverse kinds of property relations, institutions and objects. The arguments supported by this theory have been used by opposing theories and practices. Thus,

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[185]Nozick (n 91) 175.

[186] Becker (n 145) 34.

[187] Alexander and Peñalver (n 144) 48.

[188] Ibid 37.

[189] 'And thus, I think, it is very easy to conceive, without any difficulty, *how labour could at first begin a title of property* in the common things of nature, and how the spending it upon our uses bounded it.' Locke ibid § 51 see also Schlatter (n 146) 156.

[190] Locke ibid § 35, 22.

the 19th century reading of Locke supported egalitarian and redistributive efforts and policies, whereas, conversely, the 20th-century readings paint a picture of Locke as a defender of capitalist accumulation and rights of property.[191]

Locke's theory has been used as a starting point and an essential reference in discussions on IP and information as property (see section 4.2.2.). It will be used in this thesis as one of the theories that might justify property in certain digital assets.

2.6.3. Personality theory

Personality (personhood) theories justifying property originated from Hegel's conception of property as an extension of personality.[192] It is 'the relation of personality to the external sphere of things, understood in terms of the free will'.[193] Also, 'A person must translate his freedom into an external sphere in order to exist as an idea.'[194] Further, free will in every stage of development is embodied in something, externalised, and since things have no will, there is an absolute right of appropriation. Therefore, a person with a will has a right to appropriate and determine the use of a thing which is considered as not having the will. This relates to the first appropriation, and the next person who wants to appropriate it is confronted by the will of another

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[191] See C B Macpherson *The political theory of possessive individualism: Hobbes to Locke* (Wynford ed., New ed. Don Mills, Oxford University Press 2011). Alexander and Peñalver (n 144) 53; and Nozick and Epstein as the most influential contemporary American libertarian thinkers, Nozick (n 91), ibid or R Epstein, 'One Step Beyond Nozick's Minimal State' (2005) Soc. & Pol. Phil. 22. See J Tully, *A discourse on property: John Locke and his adversaries* (Cambridge University Press, 1980) 172. Becker (n 145) 43. Becker asserts that Locke's theory provides more justification for socialist than capitalist societies.

[192] G W F Hegel, *The Philosophy Of Right* (first published 1821, translated by Knox, Oxford University Press, 1967), or for a sound elabouration and critique see Penner (n 57) 169-186.

[193] See Penner ibid 173.

[194] Hegel (n 192) para 41.

embodied in possession of a thing.[195] Hegel, however, did not specify what types of property should exist, which is a lack of his theory.[196]

Modern personhood theories mainly focus on personality and human rights, invoking autonomy, liberty, identity, privacy, etc. as values that could not be effectively protected without the existence of property rights or, in other words, these values are intrinsically connected to property interests. Thus, as Munzer notes, personality theorists advocate private property rights that should be recognised in order to advance a broad range of interests and promote human flourishing. He summarises these interests as follows: peace of mind, privacy, self-reliance, self-realisation (as a social being and as an individual), security and leisure, responsibility, identity, citizenship, and benevolence.[197]

In the cluster of modern personhood theories, one of the most significant and influential is Radin's personhood theory.[198] Radin classifies property as fungible and personal, arguing that property is an essential vehicle for the development of personality, and therefore, that the property which is especially close to a person's self-definition (e.g. his home, a wedding ring, etc.) deserves special legal protections and precedence over other property rights.[199] Critics, however, suggest that the shortcoming of her theory was that Radin only referred to the autonomous self, individual development, and had nothing to say about the relational, interpersonal aspect of property and self-development.[200]

This theory is also an essential underpinning of the discussions on whether information and digital assets can be considered property. In addition, this theory is

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[195] Penner, (n 57) 174; or for more see Alexander and Peñalver (n 144) 59-61.

[196] Alexander and Peñalver ibid 65.

[197] M R Stephen, *New essays in the legal and political theory of property* (Cambridge University Press, 2001) 189-190; here he refers to personhood theorists, Waldron, Fried, Rose, Radin, Green etc.

[198] M J Radin, 'Property and Personhood' (1982) 34 STAN. L. REV. 957; Waldron (n 12).

[199] Radin, Ibid.

[200] See Alexander and Peñalver (n 144) 69.

closely linked to theories of autonomy and privacy, explored in this chapter (section 2.7.) and it will be referred to therein.

In conclusion, all these theories of property will be examined systematically in each case study chapter to analyse, not only whether doctrinal law supports the property status to digital assets, but also whether the theory, policy and ethics suggest that property should be recognised in such assets.

2.7. Autonomy, testamentary freedom and post-mortem privacy

This section will contribute to the theoretical grounding of the case study chapters by explaining the main underpinning normative stance of the thesis, i.e. the Internet user's autonomy and its related concept, post-mortem privacy.

As set out in section 1.5., there are various stakeholders relevant to the issues and the analysis in this thesis (users, families, service providers, friends, society). When considering choices amongst their interests, both doctrinal law and theoretical justifications for recognising the property status of digital assets do not always give a clear answer (as further demonstrated in sections 4.2. and 5.2.). The author thus takes a normative stance and promotes the interests of the user over their family or intermediaries. The reason for this is that autonomy is asserted herein as the key issue driving the development of the law in this area, as seen in the discovery of the notion of post-mortem privacy (section 2.8.). Simultaneously, there is a clear drive in the market to provide such autonomy via Google Inactive Account Manager or Facebook Legacy Contact (see sections 4.3. and 5.3.). Furthermore, the US Uniform Law Commission work in the area illustrates a significant policy drive towards a greater recognition of post-mortem privacy (see section 6.2.1.).

The author contends that, if one of the digital assets analysed in the subsequent chapters can be considered property, then the answer is clear and they do transmit on death. Conversely, if there is inclarity, then the interests of the user and his or her autonomy might not be met. In such circumstances, reform of the law might be indicated, which might embrace post-mortem control and the taking of steps to foster user choice and autonomy. Consequently, each of the assets will be analysed against the background set out here and if an asset does not meet doctrinal and normative aspects of property, then the author will aim to identify whether post-mortem privacy

could be used as a tool to enable user's choice and control over these assets. These are the reasons why the author chooses to consider theories of property at the outset of this chapter, followed by the autonomy section. This structure will be followed in the case studies, as well.

The thesis bases its findings and reform proposals on the proposition that the user's autonomy online should be further recognised and strengthened. In particular, the suggested code-law-market solutions (section 6.2.), as well as the concept of post-mortem privacy have their strong grounding in autonomy.

The section will first briefly look at the most important theories of autonomy. These theories will be subsequently discussed in relation to the conceptions of privacy, with the main aim to restate the link between the two concepts and then relate it to the notion of post-mortem privacy. It is argued here and throughout the thesis (see sections 4.4, 5.4. and 6.1.7.) that autonomy should be further extended on death, *inter alia*, in the form of post-mortem privacy. The analogy drawn to support this argument is that of testamentary freedom. This is another concept that implies the extension of an individual's autonomy on death, by way of disposing of his property through a will.

2.7.1. A brief conceptualisation of autonomy

Autonomy, like property, is difficult to define and it takes various meanings and conceptions, based on different philosophical, ethical, legal and other theories.[201] The theories of autonomy draw both from deist and atheist ethical stances, will and interest theories of rights, natural law and its opposition, explaining autonomy in relation to liberty, dignity, self-realisation, social contract, public interest and moral.[202] The aim of this section is to look at the conceptions of autonomy briefly and to the extent that

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[201] See e.g. R H. Fallon Jr. 'Two Senses of Autonomy' (1994) 46 Stan. L. Rev. 875, 876 ('Autonomy... is a protean concept, which means different things to different people.'); R Rao, 'Property, Privacy, and the Human Body' (2000) 80 B.U. L. REv. 359, 360 ('Autonomy itself is a complicated concept that incorporates multiple meanings.').

[202] For a very useful commentary on the development of autonomy, see J B Schneewind, *The invention of autonomy: a history of modern moral philosophy* (Cambridge University Press, 1998).

this discussion can subsequently be utilised in the privacy and post-mortem privacy analysis in particular.

The etymology of the term autonomy is based on the Greek words '*autos'* (self) and '*nomos*' (rule or law).[203] A definition similar to the linguistic meaning of the term has been offered by Raz, who maintains that 'The ideal of autonomy is that of the autonomous life...to be maker or author of his own life '[204], or Rao, arguing that that autonomy 'evokes images of self-rule, self-determination, and self-sovereignty'.[205]

Most classical thinkers explore this concept, relating it to freedom, ethics, personhood, dignity and other values. The focus of this thesis is on personal autonomy and not on 'moral autonomy', as used in Kant's work and Kantian scholarship. However, it is still necessary to refer to Kant's theory first, as his discussion of autonomy is one of the most comprehensive and influential of all times.[206]

Kantian autonomy is closely linked to ethics and represents the revolutionary thinking of morality in the 18th century. His theory is still extremely influential and provides a focal point for the contemporary scholars' discussions on ethics as well.[207] Kant's morality is based on self-governance and autonomy. According to Kant, human beings are rational, autonomous, self-governing and they themselves legislate moral law.[208] This action by their will is a pre-condition to their obedience of the moral law.[209] For Kant, 'Whatever will is to be good if it is taken universally and reciprocally must

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[203] G Dworkin, *The Theory and Practice of Autonomy* (Cambridge University Press, 1988) 12.

[204] J Raz, *The Morality of Freedom* (1986 Oxford, Clarendon) 372.

[205] Rao (n 201) 360.

[206] See Schneevind (n 202) 550-555.

[207] Schneewind (n 202) 3-11.

[208] I Kant, *Observations on the feeling of the beautiful and the sublime* (John T Goldthwait tr, 2nd edition, University of California Press, 2003) 31.10, 25.14.

[209] Ibid.

not cancel itself'.[210] Kant also discussed the relationship between the individual and general, public will, arguing that the action is morally just if it arises from the general will.[211] Furthermore, when explaining the relationships between these two wills, he refers to inner perfection that stems from 'the subordination of the totality of powers and sensibilities under the free will'.[212] He concludes with a sentence that sums up the relationship: 'This will contain both the merely private and also the general will or man observes himself immediately in consensus with the general will.'[213] In his later work, *Metaphysics of Morals*, Kant refines his theory and introduces two principles: *Rechtpflichten* – governing duties of law, and *Tugenpflichten* – governing duties of virtue or morality. The first principle mandates that human beings act externally only to allow 'the freedom of the will of each to coexist together with the freedom of everyone in accordance with a universal law.'[214] The second principle means that we are to 'act according to a maxim of *ends* which it can be a universal law for everyone to have' and these ends are our perfection and happiness of others. This is also known as Kant's categorical imperative.[215] Finally, Kant believes that acts to which someone has a right may be obtained by compulsion, whereas the adoption of ends and virtue must result from free choice.[216]

The work of thinkers that was explored in the discussions on the theories of property will also be looked at from the perspective of their conceptions of autonomy. Thus, for instance, like Kant, Locke engages in contemplating morals and the free will. According to him, the will is the power or deciding on an action, and our will engages

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[210] Ibid 67.5; 53.1.

[211] Ibid 154.4, 116.1.

[212] Ibid 145.16; 116.19.

[213] Ibid.

[214] I Kant, *The Metaphysics of Morals* (Mary Gregor tr, Cambridge, 1991) 6.230, 56.

[215] Ibid 6.395, 198.

[216] Ibid 6.381, 186.

only when we think there is good or bad at stake.[217] Willing to him is 'preferring an Action to its absence'.[218] Bentham also talks about will and autonomy in the context of his utilitarian writing on the greatest happiness principle (see section 2.6.1.). According to Bentham, we must overcome a divergence between duty and interest by our action. This means that we will pursue morally proper goals if legislation makes it clear that it is to our own interest.[219]

As noted earlier, some of the theories of property refer to autonomy and free will in their attempt to justify the concept of property. Hegel, for instance, understands property as an extension of personality and one's free will.[220] For him, property is 'the relation of personality to the external sphere of things, understood in terms of the free will'.[221] Also, 'A person must translate his freedom into an external sphere in order to exist as an idea.'[222] Further, free will in every stage of development is embodied in something, externalised, and since things have no will, there is an absolute right of appropriation. Therefore, a person with a will has a right to appropriate and determine the use of a thing which is considered as not having the will.[223] Similarly, Radin classifies property as fungible and personal, arguing that property is an essential vehicle for the development of personality.[224] Radin bases these arguments on the notion of the autonomous self and individual development, i.e. autonomy.[225]

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[217] J Locke, *An Essay Concerning Human Understanding* (Peter Nidditch ed, Oxford, 1979) II.XXI. 31-8, 250-256.

[218] Ibid II.XXI. 21, 244.

[219] J Bentham *A Fragment on Government* (Wilfrid Harrison ed, Oxford, 1948) X.5-7, 10; VII.1.

[220] G W F Hegel, *The Philosophy of Right* (first published 1821, Knox tr, Oxford University Press, 1967), or for a sound elaboration and critique see Penner (n 57) 169-186.

[221] See Penner Ibid 173.

[222] Hegel (n 220) para 41.

[223] Penner (n 57) 174; or for more see Alexander and Peñalver (n 144) 59-61.

[224] M J Radin, 'Property and Personhood' (1982) 34 Stan. L. Rev. 957.

[225] See Alexander and Peñalver (n 144) 69.

Contemporary legal scholars use the notion of autonomy based on the classical concept of liberty.[226] Therefore, autonomy can be based on John Stuart Mill's theory as expressed for instance in his classical work *On Liberty, where* Mill argued

> *the only freedom which deserves the name is that of pursuing our own good in our own way .... Each is the proper guardian of his own health, whether bodily or mental and spiritual. Mankind are greater gainers by suffering each other to live as seems good to themselves than by compelling each to live as seems good to the rest.*[227]

This has been followed by Raz and Rawls, who place emphasis on an individual as an author of his own life, including a degree of control and leading to happiness and good life.[228] For Raz, an autonomous person is one who 'is a (part) author of his own life'[229] and autonomy is a 'constituent element of the good life'.[230]

In summary, with all the differences in their approaches and the line of arguments, a considerable number of classical and contemporary western philosophers and social theorists consider autonomy as one of the central values and basis of their ethical and social theories. This thesis builds on the literature and further explores the relationship between autonomy and privacy, in order to justify its normative stance and solutions proposed in the concluding chapter. The conceptions of autonomy used

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[226] J P Safranek and C J Safranek 'Can the Right to Autonomy be Resuscitated After Glucksberg?' (1998) 69 COLO. L. REv. 737, 738 ("Contemporary legal scholars generally employ autonomy in a manner identical to the classical notion of liberty."); see also P Bernal, *Internet Privacy Rights: Rights to Protect Autonomy* (Cambridge University Press, 2014), 30.

[227] J S Mill, *On Liberty* (Gertrude Himmelfarb ed., New York, 1984) 72.

[228] The autonomous person is a (part) author of his own life. The ideal of personal autonomy is the vision of people controlling, to some degree, their own destiny, fashioning it through successive decisions throughout their lives.' Raz (n 204) 369; 'Autonomy is a constituent element of the good life' Raz ibid 408; The Rawls' conception of autonomy as the capacity for people to 'decide upon, to revise, and rationally to pursue a conception of the good' J Rawls and S. R. Freeman, *Collected Papers* (Cambridge, MA, Harvard University Press, 1999) 365.

[229] Raz ibid 369.

[230] Raz ibid 408.

to underpin the arguments of this thesis are those of personal autonomy as explained in the works of Hegel, Mill, Bentham, Raz, Rawls, Rao et.al. The thesis does not draw from the ethical considerations of autonomy, as suggested by Kant et.al. The reason for this is that the individual, the user, is the main focal point of this thesis and their interests are to be advanced in the first place, as noted in section 1.5, and notwithstanding the potentially conflicting public interest.

2.7.2. Autonomy and Privacy

Many western authors consider autonomy and privacy inseparable and include autonomy in the conceptions and definitions of privacy. Ortiz, for instance, argues that privacy defines 'the scope and limits of individual autonomy'[231] and links privacy to property. For him, property includes autonomy as dominion over things and physical sphere, whereas privacy represents dominion over oneself.[232] Henkin has offered a similar view.[233] This is closely related to Radin's theory of property and personhood, discussed earlier in this chapter and mentioned in the above section. There is a rich scholarship on privacy, autonomy, dignity and personhood that makes similar links and interrelations.[234] Recent UK privacy scholarship follows the similar line of arguments as well. Bernal, for instance, maintains that 'privacy is a crucial protector

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[231] D R Ortiz, 'Privacy, Autonomy, and Consent' (1988) 12 HARV. J.L. & Pol'y 21, 92.

[232] Ibid.

[233] L Henkin, 'Privacy and Autonomy*'* (1974) 74 COLUM. L. REv. 1410, 1425 ('The new Right of Privacy is a zone of prima facie autonomy, of presumptive immunity from regulation.').

[234] A J Rappaport, 'Beyond Personhood and Autonomy: Moral Theory and the Premises of Privacy' (2001) Utah L. Rev. 441, 443; J Feinberg, 'Autonomy, Sovereignty, and Privacy: Moral Ideals in the Constitution?*'* (1983) 58 NOTRE DAME L. REV. 445, 483 (asserting that the US Supreme Court 'in recent years appears to have discovered a basic constitutional right suggestive of our 'sovereign personal right of self-determination,' and has given it the highly misleading name of 'the right to privacy''); R M Smith 'The Constitution and Autonomy*'* (1982) 60 TEX. L. REV. 175, 175 (stating that autonomy is a 'pivotal constitutional value' in the US privacy cases and in other contexts); Henkin ibid 1425; G R Nichol, 'Children of Distant Fathers: Sketching an Ethos of Constitutional Liberty' (1985) Wis.L. REV. 1305, 1309 (linking privacy to ideal of self-govemance).

of autonomy'.[235] Bernal bases his approach on Raz's and Rawl's conceptions of autonomy.[236]

Some of the most prominent US privacy theorists, such as Nissenbaum[237] and Solove,[238] also discuss the relationship between privacy and autonomy, setting the discussion in the digital environment. For Nissenbaum, privacy is an aspect of autonomy over one's personal and privacy which frees us from the 'stultifying effects of scrutiny and approbation (or disapprobation)', contributing to an environment that supports the 'development and exercise of autonomy and freedom in thought and action'.[239] Nissenbaum further asserts that privacy is essential for our ability to make effective choices and to follow them through, which is an important aspect of autonomy understood as explained in the above section[240]. Eventually, therefore, privacy is about control, as much as autonomy and property are.[241] Similarly, an even more radical privacy as negative liberty stance is taken by Rosen.[242]

Cohen, on the other hand, offers a critique of this liberal conception of the autonomous self, noting the post-modernist critique or social constructivism and calling for a more nuanced theoretical account of privacy 'in a world where social shaping is

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[235] Bernal (n 226) 9.

[236] Ibid.

[237] 'What people care most about is not simply *restricting* the flow of information but ensuring that it flows *appropriately*.'; H. F. Nissenbaum, *Privacy in Context: Technology, Policy, and the Integrity of Social Life* (Stanford Law Books, 2010) 2.

[238] D. J. Solove 'I've Got Nothing to Hide' and Other Misunderstandings of Privacy' (2007) San Diego L. Rev. 744, 745–72.

[239] Nissenbaum (n 237) 83.

[240] Ibid 82–3

[241] See also Bernal (n 226) 35.

[242] 'I'm free to think whatever I like even if the state or the phone company knows what I read.' J Rosen, *The Unwanted Gaze: The Destruction of Privacy in America* (Vintage Books, 2001) 166.

everywhere, and liberty is always a matter of degree.'[243] Schwartz belongs to the group of scholars who see privacy in the positive liberty manner, arguing that there should be constraints to day to day autonomy and privacy so that one's capabilities can be developed and make better long-term choices.[244] This is known as a 'constitutive privacy' school of thought, which recognises autonomy as the core of privacy, but also requires external enablement and protection, because of the societal influences on the core of the autonomous self.[245] In addition, some scholars put communitarian interest, welfare and security before the individual autonomy and privacy.[246] Regan, Rao, and Bennett and Raab argue that privacy promotes equality, while Solove maintains that privacy serves multiple both individual and collective purposes, which are bound up with everyday experience.[247]

Based on these conceptions of privacy as an extension of autonomy, Bernal has recently proposed the concept of internet privacy rights, restating their grounding in autonomy:

> *To protect our autonomy, to have influence over what happens to us online, over what we see online, over what decisions are made about us and for us, we need to have protection over our data online. That means protection over*

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[243]J E Cohen, *Configuring the Networked Self: Law, Code, and the Play of Everyday Practice* (Yale University Press 2012), 7.

[244] P M Schwartz, 'Privacy and Democracy in Cyberspace' (1999) 52 Vand. L. Rev. 1609, 1660-1662.

[245]A L Allen, 'Coercing Privacy' (1999) 40 Wm. & Mary L. Rev. 723; L E Cohen, 'Examined Lives' (2000) 52 Stan. L. Rev. 1373; Schwartz ibid.

[246] For the communitarian argument, see A Etzioni, *The Limits of Privacy* (Basic books, 2000); for the argument from a security perspective, see R A Posner, 'Privacy, Surveillance, and Law' (2008) 75 University of Chicago Law Review 245.

[247] See C J Bennett and C D Raab, *The Governance of Privacy: Policy Instruments in Global Perspective* (The MIT Press, 2006); R C Post, 'The Social Foundations of Privacy: Community and Self in the Common Law Tort' (1989) 77 Cal. L. Rev. 957; P Regan, *Legislating Privacy*: *Technology, Social Values, and Public Policy* (University of North Carolina Press, 1995); D J Solove, *Understanding Privacy* (Harvard University Press, 2008).

> *how data is gathered about us, how that data is used, who can hold that data and so forth.*[248]

To achieve this, *inter alia*, Bernal supports the concept of the right to delete, as opposed to the right to be forgotten online. For Bernal

> *The essence of the right to delete personal data is a simple one: that the default position should be that people are able to have their personal data deleted. Specifically, rather than making the person who wishes their data to be deleted justify that deletion, those wishing to continue to hold that data should need to justify that holding.*[249]

Bernal also introduces some exceptions, aiming to reconcile the right to delete with free speech, security and other individual and public interests.[250] His conception of the internet privacy rights essentially relates to the concept of informational privacy, which is the most significant aspect of privacy online. Solutions suggested in the concluding chapter of this thesis build on Bernal's suggestions and extend the right to delete post-mortem, notwithstanding the post-mortem privacy interests discussed further in the following section.

2.8. Post-mortem privacy

Post-mortem privacy (hereinafter: PMP) builds on the conception of privacy as an aspect of one's autonomy. This means that autonomy should in principle transcend death and allow an individual to control their privacy/identity/personal data post-mortem. PMP is a new phenomenon in legal scholarship and, therefore, this thesis will discuss it from a doctrinal point of view as well, as opposed to the mostly theoretical analysis in the previous sections. This will enable a holistic conceptualisation of PMP, encompassing its theoretical underpinnings (i.e.

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[248] Bernal (n 226) 15.

[249] Ibid 18.

[250] Ibid 19.

autonomy) and doctrinal arguments (i.e. the protection of personal data, the testamentary freedom, etc.) for its legal recognition. The analysis will be used in chapters 4 and 5 as chiefly relevant to these two case virtual assets, emails and socials networks, comprising of a vast amount of information and personal data.

It is worth noting at the outset that one of the most significant arguments against recognising PMP is the lack of actual harm to the user, i.e. the deceased cannot be harmed or hurt.[251] The analysis in the following sections rejects this argument and makes an analogy with the option to bequeath one's property. Following a similar line of argument, the deceased should not be interested in deciding what happens to their property on death as they would not be present to be harmed by the allocation. The interests advanced in these cases are not only those of the family and society in the distribution of wealth as freedom of testation is upheld to a lesser or greater degree in most systems, even where not congruent with the interests or desires of heirs or society. It is submitted here that users do have interests in what happens after their death, and that in the digital realm this interest is greater than in the traditional world, due to the prominence and volume of personal data disclosed online, and the importance of digital assets in creating one's online identity (see sections 1.3, 4.1. and 5.1. in particular). Therefore, similar notions to testamentary freedom in relation to real world property should be developed in online environments, for digital assets.

PMP, rights of privacy for the dead, is not a recognised term of art or category in succession law or privacy literature. Edwards and Harbinja conceptualise it as 'the right of a person to preserve and control what becomes of his or her reputation, dignity, integrity, secrets or memory after death.'[252] PMP is a recognised phenomenon in disciplines such as psychology, counselling, anthropology and other humanities and social sciences. The notion, however, as noted by Edwards and Harbinja,

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[251] See e.g. Beverley-Smith's contention 'reputation and injured dignity are generally of no concern to a deceased person' H Beverley-Smith, *The Commercial Appropriation of Personality* (Cambridge: Cambridge University Press, 2002) 124.

[252] L Edwards and E Harbinja 'Protecting Post-Mortem Privacy: Reconsidering the Privacy Interests of the Deceased in a Digital World' (2013) 32(1) Cardozo Arts & Ent. L.J. 103, 103.

received little if any attention by legal scholarship.[253] Edwards, Harbinja, and McCallig[254] argue that it is an appropriate topic of public and scholarly legal concern 'particularly due to the growth in creation, sharing and acquisition of *digital assets* which often have a peculiarly personal and intimate character, and also happen to be voluminous, shareable, hard to destroy and difficult to categorise under current legal norms of property rights.'[255]

Research demonstrates that the US and UK laws do not protect PMP as such. Protection to some aspects of the phenomenon has been awarded by different legal institutions, such as the laws of privacy, breach of confidence, intellectual property, personality, publicity, defamation, succession, executry and trusts, and data protection. This protection is, however, more prominent and encompassing in civil law countries, aiming to protect the values such as autonomy, dignity, and reputation, especially of the creators.[256] In the English and the US common law systems, the principle has traditionally been *actio personalis moritur cum persona*, meaning personal causes of action die with the person, (e.g., defamation claims, breach of confidence claims, wrongful dismissal claims, etc.).[257] This principle has been revised by legislation mainly in many contexts for reasons of social policy.[258]

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[253] Ibid.

[254] D McCallig 'Private but Eventually Public: Why Copyright in Unpublished Works Matters in the Digital Age' (2013) 10:1 *SCRIPTed* 43-44.

[255] Edwards and Harbinja (n 252) 103, 104.

[256] Ibid 121.

[257] *Baker v. Bolton*, (1808) 170 Eng. Rep. 1033 (K.B.).

[258] The principle has been revised in the United Kingdom and now only pertains to causes of action for defamation and certain claims for bereavement. See generally Law Reform (Miscellaneous Provisions) Act 1934, c. 41, The Race Relations Act 1976, c. 74, Sex Discrimination Act 1975, c. 65, Disability Discrimination Act 1995, c. 50, and Administration of Justice Act 1982, c. 53.

It is clear that PMP is not protected as such in English law.[259] Although in principle, the same could be said for the US,[260] some traces of PMP protection could be found in individual states' law. According to the Restatement (Second) of Torts, there can be no cause of action for invasion of privacy of a decedent, except 'appropriation of one's name or likeness.'[261] Some states do provide for the protection of so-called 'publicity rights' (rights that usually protect, celebrities, but sometimes all the individuals' right to name, image, likeness, etc.) post-mortem, up to the limit of 70 years after death.[262]

Protection of personal data is to be found in the rules on data protection in the EU. Do data protection rights survive? Human rights apply only to living persons,[263] and the Data Protection Directive (DPD) applies only to living individuals as well,

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[259] Edwards and Harbinja (n 252).

[260] In the Restatement (Second) of Torts, the American Legal Institute takes a stance similar to English law that a person's privacy interest ends upon his death. *Fasching v Kallinger* 510 A.2d 694, 701 (N.J. Super. Ct. App. Div. 1986) ('The general rule is: the right of privacy dies with the individual. The right of privacy is a personal right and cannot, as a general rule, be asserted by anyone other than the person whose privacy is invaded.'); 'the purely personal right of privacy dies with the person' *Miller v. Nat'l Broad. Co*., 232 Cal. Rptr. 668, 680 (Ct. App. 1986); see also *Hendrickson v. Cal. Newspapers, Inc*., 121 Cal. Rptr. 429, 431 (Ct. App. 1975) ('It is well settled that the right of privacy is purely a personal one; it cannot be asserted by anyone other than the person whose privacy has been invaded, that is, plaintiff must plead and prove that *his* privacy has been invaded. Further, the right does not survive but dies with the person.').

[261] See Restatement (Second) of Torts § 652I (1977) ('Except for the appropriation of one's name or likeness, an action for invasion of privacy can be maintained only by a living individual whose privacy is invaded.').

[262] For a survey of which states provide for the protection by common and statute law, see Edwards and Harbinja (n 252) 124; Also, for an interesting proposal of creating publicity rights in Scots law, which would extend beyond death but only if registered pre-mortem for the benefit of the beneficiaries according to the deceased's will, see G Black*, A Right of Publicity in Scots Law* (PhD thesis, University of Edinburgh, 2009) 226-238, or *Publicity Rights and Image: Exploitation and Legal Control* (Hart, 2011), 160-170.

[263] *Jäggi v. Switzerland,* App. No. 58757/00, 47 Eur. H.R. Rep. 30 (2006); *Estate of Kresten Filtenborg Mortensen v. Denmark*, App. No. 1338/03, 2006-V Eur. Ct. H.R. (2006); *Koch v. Germany*, App. No. 497/09, Eur. Ct. H.R. (2012)

protecting the personal data of 'natural persons'.[264] However, the Directive leaves discretion in implementation to EU member states to extend this minimum protection, which is guaranteed.[265] Some EU states have used this possibility, and their data protection laws offer some kind of post-mortem data protection, limited in its scope and post-mortem duration.[266] McCallig finds that 12 states protect the deceased's personal data (Bulgaria, Czech Republic, Denmark, Estonia, France, Italy, Latvia, Lithuania, Portugal, Slovakia, Slovenia and Spain); 4 states expressly exclude the deceased (Cyprus, Ireland, Sweden and the United Kingdom); 10 states refer to personal data of a natural person (Czech Republic, Denmark, France, Italy (both natural and legal person), Latvia, Lithuania, Portugal, Slovakia, Slovenia and Spain) and one state provides a temporal limit for protection of the deceased's personal data (Estonia, 30 years on consent).[267] The rationale behind not giving protection to the deceased's personal data is the lack of the ability to consent to the processing of data.[268] Similarly to the arguments put forward by Edwards and Harbinja, McCallig also argues that there is no bar in data protection of the Article 8 ECHR in recognising

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[264] Art. 2 a) Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, Official Journal L 281, 23/11/1995 P. 0031 – 0050 (The Data Protection Directive).

[265] Case C-101/01, *Criminal Proceedings Against Lindqvist*, 2003 E.C.R. I-12971, I-13027 (European Court of Justice decision deferring to the national court's resolution of the issue) ('On the other hand, nothing prevents a Member State from extending the scope of the national legislation implementing the provisions of Directive 95/46 to areas not included within the scope thereof, provided that no other provision of Community law precludes it.').

[266] Edwards and Harbinja (n 252) 131, 132.

[267] D McCallig 'Data Protection and the Deceased in the EU' Presentation at the Computer Privacy and Data Protection 2014 Panel: Exploring post-mortem privacy in a digital world, 21-23 January 2014 (on file with the author).

[268] 'Dead persons cannot give consent to use or changes in their personal data or contribute to any balancing of interests which may be required. Rights as data subjects should in general extend only to living individuals, but should be exercisable for a limited period after the death of the data subject by personal representatives.' House of Lords Select Committee on the European Communities, *Report of the Protection of Personal Data* 1992.

the deceased as data subjects.[269] The UK Data Protection Act 1998 defines personal data as 'data which relate to a living individual'[270], denying any post-mortem rights.

These findings of the legal protection of PMP can be contrasted to the general theoretical and legal position on the freedom of testation.

2.8.1. Testamentary freedom and PMP

In comparative academic discussions on succession laws, it is common knowledge that the freedom of testation as a concept is much more limited in the civilian systems than it is in common law countries.

The practically unlimited freedom of testation is considered inviolable in common law,[271] stemming from liberal, *laissez-faire* economic and social thought revolving around liberty and autonomy, which were explored in the section above.[272] Examples of thinkers who explicitly supported freedom of testation include Bentham, Mill and Locke.[273]

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[269] McCallig surveys EU member states and finds that 12 Member States provide some level of recognition. (n 267).

[270] Data Protection Act 1998, c. 29, s (1)(e).

[271] As Atherton and Vines observe: 'The ability of the testator to leave his or her property by will to whomever pleased him or her (the testator's testamentary freedom) was the dominant doctrine in the common law world for about 200 years before the twentieth century. The emphasis on the right to do what one liked with one's property reflected the succession theory of the time-the importance of the individual, the emphasis on free will, the importance of contract and the rise of capitalism': R F Atherton and P Vines, *Australian succession law: commentary and materials* (Butterworths, 1996), 34.

[272] see e.g. F du Toit 'The Limits Imposed Upon Freedom of Testation by the Boni Mores: Lessons from Common Law and Civil Law (Continental) Legal Systems' (200) 11 Stellenbosch L. Rev. 358, 360; or M J De Waal 'A comparative overview' in K Reid, M J De Waal and R Zimmermann, eds, *Exploring the law of succession: studies national, historical and comparative* (Edinburgh University Press 2007) 1-27, 14.

[273] John Locke regarded the power of bequest as part of paternal authority: T. Cook (ed), *Two Treatises of Government,* (New York: Hafner, 1947) Second Treatise, 156. Mill had utilitarian reservations about inherited wealth, but he maintained nevertheless that 'each person should have power to dispose by will of his or her whole property' J S Mill *Principles of Political*

Blackstone, for instance, maintains that wills are 'necessary for the peace of society' and testamentary freedom is a 'principle of liberty'.[274] It has been said that testamentary freedom 'crystallised eighteenth-century liberal thinking in relation to property' and was seen as 'a means of self-fulfilment'.[275] Case law has developed similar stances. For instance, Cockburn C J observed in the 1870 case of *Banks v Goodfellow*: 'The law of every civilised people concedes to the owner of property the right of determining by his last will, either in whole or in part, to whom the effects, which he leaves behind him shall pass.'[276]

In civilian countries, this principle is considerably limited by the notion of forced heirship, giving certain family members indefeasible claims to a part of the testator's estate. Justifications for limiting the principle of testamentary freedom originate from ethical, philosophical and natural law thoughts, arguing for 'solidarity between generations'.[277]

Looking at freedom of testation from another perspective, more individual and personal, some authors argue that the freedom of testation is an aspect of the testator's personality rights. As such, it cannot be detached from an individual, delegated or transferred from another person.[278] Similarly, others characterise the freedom of testation as the manifestation of autonomy, having a considerable effect

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Economy (8th ed, London: Longmans, Green, Reader Dyer, 1878) 281. In his Principles of the Civil Code, Bentham thus asserted that: 'The power of making a will ...may ...be considered as an instrument of authority, confided to individuals, for the encouragement of virtue and the repression of vice in the bosom of families. ...' J Bentham, 'Principles of the Civil Code', in John Bowring (ed), *The Works ofJeremy Bentham* (Edinburgh: William Tait 1843) Vol 1, 337.

[274] W Blackstone, *Commentaries on the Laws of England (1765-1769)* (18th ed, S. Sweet etc. 1829) Book II 489, 437-438.

[275] R Atherton, 'Expectation Without Right: Testamentary Freedom and the Position of Women in Nineteenth Century New South Wales' (1988) 11 Univ of NSWLJ 133, 134.

[276] *42* (1870) 5 LR QB 549, 563, quoted in Atherton ibid.

[277] De Waal (n 272) 15.

[278] See J C Sonnekus 'Freedom of testation and the aging testator' in K Reid, M J De Waal and R Zimmermann (n 273) 78-99, 79.

on the emancipation of the individual.[279] Therefore, if we share these views and see freedom of testation as another personality right, it could seem somewhat odd that countries which provide more protection for personality rights in general, restrict the freedom of testation more (e.g. Germany), whereas countries that, arguably, provide less protection for personality rights (e.g. UK and US states) value and protect freedom of testation more.[280] This could only bring us back to the economic and market rationale in explaining the 'unlimited freedom of testation' in common law countries, giving a little space for personality arguments. Along the same line, civilian countries limit freedom of testation for similar reasons, economic and social, putting personality rights arguments behind.

Freedom of testation has been briefly defined herein in order to relate this general concept to post-mortem autonomy and PMP. The section, however, did not go into many details about the laws surrounding the freedom of testation, as the conceptual comparisons were the focus of the section. The argument proposed in this thesis is that freedom of testation should translate to the online environment, where digital assets mainly comprise of informational and personal data content (see sections 1.3, 4.1. and 5.1.). These assets are a counterpart of the offline assets and wealth. Therefore, an individual should be able to exercise his autonomy online and decide what happens to their assets on death. As Bentham puts it in his description of 'auto-icon', 'Every man is his best biographer'.[281] The author agrees with this proposition and develops it further in relation to digital assets.

One of the most obvious objections to extending privacy post-mortem (where it has not already been extended, as found by Edwards and Harbinja)[282] is that the legal life

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[279] de Waal (N 272) 169; or L M Friedman 'The Law of the Living, the Law of the Dead: Property, Succession and Society' (1966) Wisconsin LR 340, 355 (asserting: 'The power of disposition is felt psychologically to constitute an essential element of power over property.').

[280] See analysis and comparison in Edwards and Harbinja (n 252).

[281] N Naffine, 'When does the Legal Person Die? Jeremy Bentham and the 'Auto-Icon'' (2000) AJLP 25.

[282] Edwards and Harbinja (n 252).

terminates on death and legal personality ceases to exist.[283] Legal personality, however, as found by Naffine, is relative and varies from a branch of law to branch of law and from legal family to legal family. There is no clear-cut answer as to when the legal personality dies.[284] Legal personality in some cases, such as the testamentary freedom, does extend on death, even impliedly by allowing a deceased person to control their wealth by the wishes they expressed pre-mortem. Along these lines, Simes observes that 'though death eliminates a man from the legal congeries of rights and duties, this does not mean that his control, as a fact, over the devolution of his property has ceased. A legal person he may not be, but the law still permits his dead hand to control.'[285] Tur is even more critical of the definition of legal personality and its ending on death, arguing

> *We do not even have...any clear idea of when a legal person comes into being or when he ceases to exist...Nor should we regard physical death as marking the termination of legal life, if for no other reason than the existence of a legal will, through which the physically dead person seeks to control the disposition of his property.*[286]

This argument can further be related back to Hegel's and Radin's personhood theories of property. Thus, if property is an extension of an individual's personhood and a necessary pre-condition for its development, then this personhood transcends

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[283] Naffine (n 281) states that 'English law proceeds upon the basis that the deceased as a legal person does not survive his physical death'. Or Paton's *Jurisprudence* cited as authority for the proposition that 'most modem legal systems lay down the rule that, in cases where legal personality is granted to human beings, personality begins at birth and ends with death.' O Wood and G L Certoma, *Hutley, Woodman and Wood Succession. Commentary and Materials* (4th ed, Sydney: Law Book Co, 1990) 309. But also 'In the Anglo-American system of law, the dead have neither rights nor duties…We may appoint a guardian ad litem to protect the expectant interests of the unborn. There is no guardian ad litem for the deceased because he has no interest." L Simes, *Public Policy and the Dead Hand* (University of Michigan Law School, 1955) 1.

[284] Naffine (n 281); Also see R Tur, 'The 'Person' in Law', in A Peacocke and G Gillett, eds, *Persons and Personality: A Contemporary Inquiry* (Oxford: Basil Blackwell, 1987) 122.

[285] Simes (n 283) 1.

[286] Tur (n 284) 123.

death same way his property does, through a will. Moral rights provide further support for this argument. As a personal aspect of copyright, moral rights extend on the death of a creator, perpetually (e.g. France), as long as the economic rights last, or for a lesser period with an option of waiving these rights (e.g. the UK and the US).[287] This evidence again support a proposition that aspects of personality, in this case, dignity, integrity and autonomy, do survive death, sometimes even for an unlimited period, as in France. Therefore, legal personality does extend beyond death and so should privacy.

A. Interim conclusion

The discussion above, therefore, reviewed the role of autonomy as a value and then discussed particularly how it supports privacy. The author follows the pro-autonomy stance of Nissenbaum, Bernal's et.al., as justification for the difficult choices herein in favour of users' rights, rather than platforms or families (see sections 4.5, 5.5. and 6.2.).

In summary, it is clear the law typically recognises a person's autonomy and as a connected phenomenon, that person's right and ability to dispose of his or her wealth and property. This, however, has arguably not been translated to the online world. As will be shown in greater detail in the case study chapters (sections 4.3. and 5.3.), neither a user's rights of ownership over digital assets nor their rights to allocate these assets after death, are routinely recognised. It can be argued that in the online world, digital assets are more closely related to privacy interests than in the online world, and thus are much more closely related to the personal and autonomy interests of the user. It is therefore argued here that separate from the general consideration of property status and, thus transmissibility; testamentary freedom should in principle extend to digital assets created in the online world.

The author argues throughout the thesis for recognition of at least some degree of PMP and the right of an individual to dispose of/control their personal data post-mortem. Of course, like all user interests, PMP rights will need to be balanced with

[287] For more details see Edwards and Harbinja (n 252) 129.

other considerations, including the same privacy interests of others and the social and personal interests in free speech and security, etc. It is, unfortunately, not possible in the scope of this thesis to analyse the potential exceptions more in detail. The aim of the thesis is merely to discuss if the transmission of personal digital assets on death on doctrinal or theoretical grounds is justified. In discussing this challenging and grey question, this thesis will take the view that autonomy interests play a vital part, and furthermore, that a framework for recognition of PMP, which will assist in the transmission of digital assets on death, is essential. The position set out in this chapter is, however, principled and the practical solution will be discussed more in the last chapter of the thesis (section 6.2. for instance). The counterbalancing of such autonomy and property interests by countervailing interests is a further issue which will be dealt with in the author's future work.

Admittedly, however, some digital assets might not be so intertwined with the user's privacy, e.g. a poem written on Facebook or a short story in an email. This would be a primarily intellectual property issues, and the relevant case study chapter suggests appropriate solutions to tackle their transmission (sections 4.5. and 5.5.).

2.8. Conclusions

This chapter has set out the theoretical background for the chapters that follow. It has identified features and theoretical justifications of property.

First, the chapter looked at theories and black letter law on incidents of property, drawn from common and civil legal systems. Second, it engaged in a normative discussion of what justifies the creation of 'property', drawn from Western theoretical literature. This discussion will be applied in the case study chapters to determine whether the selected digital assets can/should be considered property of a user. Third, the chapter outlined a discussion of the main underpinning value of the thesis, i.e. autonomy and the concept based on autonomy, which will recur in several chapters on case studies of particular assets, and represents one of the novel contributions of the thesis, viz. PMP. Post-mortem privacy is seen as a manifestation of users' autonomy, online in particular, and finds one of the justifications in autonomy expressed in the form of testamentary freedom. Therefore, depending on the context of the digital asset, it will be argued in chapters 3, 4 and 5 that some information does merit post-mortem protection and control.

Chapter 3 - Virtual Worlds

3.1. Conceptualisation and history of VWs

3.1.1. Introduction: definitions and a brief historical account

The concept of virtual worlds (hereinafter: VWs) pre-dates the Internet. The history of Virtual Worlds began with text-based, offline role-playing games, created on the basis of different works of fiction, such as, for instance, Tolkien's books and the idea of world building.[1] The first text-based interactive computer game appeared in 1970, The Colossal Cave Adventure, with real-time interactive computer games called MUDs (Multi-User Dungeons) appearing by the end of the 1970s.[2] These are the first VWs. *MUD1* was created by Richard Bartle and Roy Trubshaw in 1979, at Essex University, being the first online computer game connected. However, the most famous game in this group (text-based VWs) was *LambdaMOO,* created by Pavel Curtis in 1990.[3]

The literature analysing social, economic, technological and legal aspects of virtual worlds starts from the late 1990s, in relation to the text-based VWs,[4] continuing throughout the 2000s, discussing visually represented VWs and MMOPGs (massively

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[1] F G Lastowka and D Hunter, 'Virtual Worlds: A Primer' in J M Balkin and B Simone Noveck eds *The State of Play: Laws, Games, And Virtual Worlds* (NYU Press 2006) 13-28, 17-18; W Erlank *Property in Virtual Worlds* (December 1, 2012, PhD thesis at Stellenbosch University) 22-23, http://ssrn.com/abstract=2216481 accessed 15 May 2016.

[2] F G Lastowka FG and D Hunter 'The Laws of the Virtual Worlds' (2004) 92 Cal. L. Rev. 1, 17.

[3] F Rex 'LambdaMOO: An Introduction' *LambdaMOO*, http://www.lambdamoo.info accessed 15 May 2016; For more details about the history and the development of computer games in general, see e.g.: J Juul, 'A History of the Computer Game' (*Blog*, 2001) http://www.jesperjuul.net/thesis/2-historyofthecomputergame.html accessed 15 May 2016; or J Dibble, *My Tiny Life: Crime and Passion in a Virtual World* (Henry Holt, 1998).

[4] E.g. R Bartle 'Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs' *The Journal of Virtual Environments (1996) 1 (1) http://mud.co.uk/richard/hcds.htm accessed 15 May 2016.*

multiplayer online playing games). The focus of the early literature was mainly on the technical, philosophical and governance issues of MUDs. More substantive legal discussion started at the beginning of the 21st century, with seminal works on the legal aspects of VWs. These academic works predominantly tackle the following issues:

economies and taxation;[5] governance of VWs;[6] property and IP in VWs;[7] contracts issues and consumer protection;[8] and virtual crime.[9]

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[5] E Castronova 'On Virtual Economies' (2003) 3 The International Journal of Computer Gaming Research http://www.gamestudies.org/0302/castronova/ accessed 15 May 2016; 'Real Products in Imaginary Worlds' (2005) 83(5) Harvard Bus Rev 20, 20-22; 'The Right to Play' (2004) 49 NYL Sch L Rev 185; 'Virtual World Economy: It's Namibia, Basically' (*Terranova*, 3 August 2004).http://www.terranova.blogs.com/terra_nova/2004/08/virtual_world_e.html accessed 15 May 2016; Lastowka and Hunter D (n 1) 9; J T L Grimmelmann 'Virtual worlds as Comparative Law' (2004) 49 *NYL Sch L Rev* 147, 149; B Pollitzer 'Serious Business: When Virtual Items Gain Real World Value' (SSRN 10 Oct 2009) http://ssrn.com/abstract=1090048 accessed 15 May 2016; M A Cherry 'A Taxonomy Of Virtual Work' (2011) 45 GA. L. REV. 951; B T. Camp 'The Play's the Thing: A Theory of Taxing Virtual Worlds' (2007) 59(1) Hastings Law Journal 69.

[6] Lastowka and Hunter (n 1); V Mayer-Schoenberger and J R Crowley 'Napster's Second Life? - The Regulatory Challenges of Virtual Worlds' (2006) 100 Nw. U. L. Rev. 1775; B J Gilbert 'Getting to Conscionable: Negotiating Virtual Worlds' End User License Agreements without Getting Externally Regulated' (2009) 4 J. Int'l Com. L. & Tech. 238; J M Balkin 'Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds' (2004) 90(8) Va. L. Rev. 2043; T Day 'Avatar Rights in a Constitutionless World' (2009-2010) 32 Hastings Comm. & Ent. L.J. 137; J Rogers, Note 'A Passive Approach to Regulation of Virtual Worlds' (2008) 76 GEO. WASH. L. REV. 405.

[7] Lastowka and Hunter (n 1); S H Abramovitch and D L Cummings 'Virtual Property, Real Law: The Regulation of Property in Video Games' (2007) 6(2) C J Law & Tech 73; J Fairfield 'Virtual Property' (2005) 85 B.U.L. Rev. 1047; E. Castronova 'Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier' (2001) 618 CESifo Working Paper Series; C Blazer 'The Five Indicia of Virtual Property' (2006) 5 Pierce L Rev 137; R Vacca 'Viewing Virtual Property Ownership through the Lens of Innovation' (2008) 76 Tenn L Rev 33; T J Westbrook 'Owned: Finding a Place for Virtual World Property Rights' (2006) 3 Michigan State LR 779-812; M Meehan 'Virtual Property: Protecting Bits in Context' (2006) XIII Rich JL & Tech 1; Erlank (n 1), J M Moringiello, Juliet 'Towards a System of Estates in Virtual Property' (2008) 1 Int. J. Private Law 3; *Kremen v. Cohen*, 337 F.3d 1024 (9th Cir. 2003); A Chein 'A Practical Look at Virtual Property' (2006) 80 St John's L Rev 1059; K E Deenihan 'Leave Those Orcs Alone: Property Rights in Virtual Worlds' (26 March 2008) available at SSRN: http://ssrn.com/abstract=1113402 accessed 15 May 2016; C Cifrino 'Virtual Property, Virtual Rights: Why Contract Law, Not Property Law, Must Be the Governing Paradigm in the Law of Virtual Worlds' (2014) 55 B.C.L. Rev. 235; Marcelino G. Veloso III 'Virtual Property Rights: A Modified Usufruct of Intangibles' (2010) 4 Philippine. Law Journal 82; J Slaughter 'Virtual Worlds: Between Contract and Property' (2008) 62 Yale Student Scholarship Papers http://digitalcommons.law.yale.edu/student_papers/62 accessed 15 May 2016; U Yoon 'South Korea and indirect reliance on IP law: real money trading in MMORPG items' (2008) 3 (3) JIPLP 174, 174; J W Nelson 'Fiber Optic Foxes: Virtual Objects and Virtual Worlds Through the Lens of Pierson v. Post and the Law of Capture' (2009) 5 J Tech L & Pol'y 14; 'The Virtual

There is also a variety of academic literature discussing death and VWs from anthropological, sociological, psychological, educational and other perspectives,[10] but little, almost nothing, from a legal angle.

Legal aspects of transmission of other digital assets on death (e.g. emails, social network accounts, online banking accounts, photos, domain names, etc.) have been explored to an extent following the growing importance of these assets in life and on death of the users, only sporadically mentioning virtual world accounts as types of digital assets.[11] This literature will be explored in more detail in the following chapters.

Property Problem: What Property Rights in Virtual Resources Might Look Like, How They Might Work, and Why They are a Bad Idea' (2010) 41 McGeorge L. Rev. 281.

[8] A Jankowich 'The Complex Web of Corporate Rule-Making in Virtual Worlds' (2006) 8 TUL. J. Tech. & intell. Prop. 1, 52-53; B Glushko 'Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds' (2007) 22 Berk Tech L J 507; R Shikowitz, 'License to Kill: MDY v. Blizzard and the Battle over Copyright in World of Warcraft' (2009-2010) 75 Brook. L. Rev. 1015; J Fairfield 'Anti-Social Contracts: The Contractual Governance of Virtual Worlds' (2007) 53 Mcgill L.J. 427; D Miller, 'Determining Ownership in Virtual Worlds: Copyright and License Agreements' (2003) 22 Rev. LITIG. 435; P Riley 'Litigating Second Life Land Disputes: A Consumer Protection Approach' (2009) 19(3) Fordham Intell. Prop. Media & Ent. L.J. 877; P J Quinn 'A Click Too Far: The Difficulty in Using Adhesive American Law License Agreements To Govern Global VIRTUAL WORLDs' (2010) 27 Wis. Int'l L.J. 757.

[9] O S Kerr 'Criminal Law in Virtual Worlds' 2008 U. Chi. Legal Forum 415; Lastowka and Hunter (n 1); A R Lodder 'Dutch Supreme Court 2012: Virtual Theft Ruling a One-Off or First in a Series?' (2013) 6 (3) JVWR 1; A V Arias 'Life, Liberty and the Pursuit of Swords and Armor: Regulating the Theft of Virtual Goods' (2008) 57 Emory LJ. 1301.

[10] E.g. R Ferguson 'Death of an avatar: implications of presence for learners and educators in virtual worlds' (2012) 4(2) *JGVW*, 137; M Jakobsson 'Rest in Peace, Bill the Bot: Death and Life in Virtual Worlds' in R Schroeder, ed *The Social Life of Avatars* (2002, London, Springer); J A Archinaco 'Virtual Worlds, Real Damages: The Odd Case of American Hero, the Greatest Horse that May Have Lived' (2007) 11(1) Gaming L.J.; C J Sofka, I N Cupit and K R Gilbert eds. *Dying, Death, and Grief in an Online Universe: For Counselors and Educators* (New York: Springer Publishing Company, 2012); A Haverinen, *Memoria virtualis - death and mourning rituals in online environments* (August 8, 2014, PhD thesis at University of Turku) https://www.doria.fi/handle/10024/98454 accessed 15 May 2016.

[11] See e.g. L Edwards and E Harbinja, 'What Happens to My Facebook Profile When I Die? Legal Issues Around Transmission of Digital Assets on Death', *in* C Maciel and V Pereira, eds, *Digital Legacy and Interaction: Post-Mortem Issues* (Springer 2013) 115; J Mazzone, 'Facebook's Afterlife' (2012) 90 N.C. L. Rev. 67; D R Desai, 'Property, Persona, and Preservation' (2008) 81 Temp. L. Rev. 67; J Darrow and G Ferrera 'Who Owns a Decedent's E-Mails: Inheritable Probate Assets or Property of the Network?' (2006) 10 N.Y.U. J. Legis. &

This chapter addresses the gap in the literature and sheds light on the post-mortem legal status of different in-game assets (e.g. avatars, weapons, houses, land). The author has addressed this issue in her previous writings, and this analysis will be largely based on the arguments and analysis set out therein.[12] This analysis is, however, more thorough and the chapter addresses the topic at a greater length than any of the articles.

The chapter, in accordance with the main and subordinate research questions of this thesis, explores how the notion of property applies to VWs. It will attempt to determine if there is property in VWs, and if not, what would be an appropriate legal treatment of user rights and interests in virtual, in-game assets. The aim is to determine the possibility of transmission of virtual assets (hereinafter: VAs) or their value on the death of a player.

The term VAs (VA) is used here provisionally, trying to avoid any implications towards the potential legal nature of these assets. Therefore, the analysis avoids using the widely-used term virtual property (hereinafter: VP) at the moment. Later in this chapter, after having explored different legal concepts that could be used to characterise these assets, the term might change and adapt to the findings. Until then, the term VAs will be used to describe any item, object or asset found in VWs and used/created by the players (e.g. avatar, weapons, land, houses, clothes, furniture, and anything else that could be found in different VWs). It is also important to differentiate VAs from digital assets defined in the Introduction. VAs are only a subset of digital assets (DAs), which are defined as any asset of value online, capable of post-mortem transmission (section 1.3.1.).

Pub. Pol'y Vol. 281; J Atwater 'Who Owns Email? Do you have the right to decide the disposition of your private digital life?' (2006) Utah L. Rev. 397; T G Tarney, 'A Call for Legislation to Permit the Transfer of Digital Assets at Death' (2012) 40 The Cap. U. L. Rev. 773; K Sherry 'What Happens to Our Facebook Accounts When We Die?: Probate versus Policy and the Fate of Social-Media Assets Postmortem' (2013) 40(1) Pepp. L. Rev. 185; D McCallig 'Facebook after death: an evolving policy in a social network' (2013) Int'l JL & Info Tech 1.

[12] E Harbinja 'Virtual worlds players – consumers or citizens?' (2014) 3(4) Internet Policy Review http://policyreview.info/articles/analysis/virtual-worlds-players-consumers-or-citizens accessed 15 May 2016; 'Virtual Worlds – a Legal Post-Mortem Account' (2014) 11:3 SCRIPTed 273 at: http://script-ed.org/?p=1669 accessed 15 May 2016.

The analysis will therefore assess whether these assets could fit within the notions of property (the theoretical grounding set out in chapter 2) or some other relevant legal concepts (intellectual property, servitudes, easements, the right of use), which would result in these assets being recognised as part of a user's estate (see section 2.5.). This first question is aligned with the theoretical underpinning of the thesis, i.e. the discussion whether a digital asset can and should be considered property, and consequently, transmit on death. The discussion and conceptual framework of PMP have not been included in this chapter because sharing and storing of personal data, currently, is not a predominant feature of VWs, as it is in emails and social networks. VWs users are represented by their avatars or other items, and they normally do not share their identities and personal data publicly that are being shared in emails and SNSs.

The author does not share the views of most the classical legal VWs literature arguing for the recognition of 'virtual property' and referring to full ownership. Rather, this chapter proposes a compromise solution, aiming to reconcile different interests arising in VWs, primarily, those of developers and players. Recognising a phenomenon of *consitutionalisation* of VWs and arguing for a better recognition of the player's in-game interests, the chapter identifies a solution entitled 'VWs user right'. a personal right of a player against VW provider in second layer assets. The right will only be transmissible as a monetary claim if VA exchanges are legal on recognised auction sites. If no such auction sites exist or ToS do not permit them, then monetisation is not possible, and neither is the right to compensation. The solution would enable players to take more control over their virtual assets and their heirs to benefit from, potentially, valuable VW accounts and VAs.

3.1.2. Conceptualisation of VWs

From a linguistic perspective, VWs could be defined as states of human existence, which do not exist physically, are not real, but appear to be real from the point of view

of the program or the user.[13] From this definition, we could extract the most key features that define VWs: computer - moderated; persistence; environmental attributes (immersive and persuasive worlds, mimicking the real world); interactivity; participation of multiple individuals.[14]

Developers use different business models for their VWs. Some of them are closed, used for military or business simulations, whereas others are open, commercial worlds, where users can join for free, for a monthly fee payment (World of Warcraft), or operate on a freemium basis (Second Life for instance), where the basic services are free, and others have their price.[15]

The umbrella term for VWs is MMOPGs, but these can be divided on the basis of their player community and structure into game worlds and social worlds. In game VWs (massively multiplayer online role-playing games - MMORPGs), players take a specific role and compete to achieve certain predefined goals (e.g. World of Warcraft). In the social or unstructured worlds, the emphasis is on social interaction with other players and with the environment (e.g. Second Life, IMVU). These VWs are not, therefore, games but rather, platforms for social interaction, or 'mirror worlds'.[16] The third kind of VWs is kids' worlds, those targeting children as the main player base (e.g. Club Penguin).[17]

According to the technology employed to enable access to the worlds, the worlds are divided into client-based (e.g. World of Warcraft), and those where the players can join simply online (e.g. Second Life). Some video games, including some VWs (e.g.

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[13] The Oxford English Dictionary (Oxford University Press 2016), available at: http://www.oed.com/ accessed 15 May 2016.

[14] Erlank (n 1) 47-57.

[15] See J Fairfield 'The End of the (Virtual) World' (2009) 112(1) W. Va. L. Rev. 53, 53; Riley (n 8).

[16] Kzero Worldswide, 'Radar Charts Q2 2014 VWs and MMOs shown by genre, average user age and status' (*KZero*, 2004) http://www.kzero.co.uk/blog/category/education-and-academia accessed 15 May 2016.

[17] G Lastowka *Virtual Justice: The New Laws of Online Worlds* (Yale University Press 2010), 58.

The Lord of the Rings Online, Dungeons & Dragons Online, Everquest II, Diablo et.al.) can also be accessed from intermediaries. The most prominent is an entertainment platform called Steam.[18]

This chapter will focus on two examples: World of Warcraft and Second Life. The reason for choosing the US-based VWs is that most of the successful Western VWs are indeed hosted in the US,[19] choice of law provisions usually points to US law, and the majority of common law cases have been resolved there.[20] Also, these examples are chosen for the reasons of their domination on the market, user base, their impact and 'cultural footprint'.[21] Second Life is currently perceived as declining in popularity, but it is still worth mentioning as most of the existing case law involves this VW.[22]

Before initiating the virtual property and contracts analysis, and in order to bring potential legal disputes closer to the reader, the following section will present some examples. These examples are the actual US court cases, and they serve to illustrate legal issues appearing in VWs. Unfortunately, at the time of writing, there has not been a single UK case discussing the issues of VWs and VP.

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[18] The platform distributes different video games and other software, from both independent and established software companies. It is also a communication, social networking and multiplayer platform, allowing different kinds of interactions between players (akin to social network sites). The further evolution of VWs includes innovative hardware (e.g. Oculus Rift), bringing even more reality to these worlds, Kzero Worldswide 'Consumer Virtual Reality: State of the Market Report' (*KZero*, 2014) http://www.kzero.co.uk/blog/category/education-and-academia accessed 15 May 2016.

[19] B Edwards, 'The 11 Most Influential Online Worlds of All Time' (PCWorld, 2011) http://www.pcworld.com/article/228000/influentialonlineworlds.html accessed 03 December 2015.

[20] Fairfield (n 8) 430.

[21] Quinn (n 8).

[22] Sporadic references will be made to other VWs and platforms, but the main analysis will be based on the examples of these two VWs.

3.1.3. Illustrations through case law

3.1.3.1. Bragg case: property and jurisdiction in VWs

The first and most famous VWs case is the case of *Bragg v. Linden Research, Inc.*[23] In this case, Marc Bragg sued the owners of Second Life, Linden Research, after they expelled him from the online community and reclaimed his VAs, 'effectively confiscating all of the virtual property and currency that he maintained on his account' (roughly $2,000 in real-world money on account).[24] Linden Lab expelled Marc Bragg claiming that he had violated their Terms of Service by improperly buying land at an auction for approximately $300. Second Life moved to compel arbitration according to the terms of service agreement. Bragg, however, argued that the contractual terms between Bragg and Second Life were unconscionable because the service agreement assumed too much power and was unreasonably biased against the user. The court confirmed that the terms of service were unconscionable in relation to the mandatory arbitration clause and knocked it down.[25] More specifically, the court focused on the fact that there was surprise due to hidden or missing terms, because there was no notice of the serious expense and inconvenience to the plaintiff, having to spend ten to twenty thousand dollars to pay the arbitrators in addition to having to go to California from Pennsylvania in order to take part in the arbitration. The court

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[23] 487 F. Supp. 2d 593, 612 (E.D. Pa. 2007).

[24] Ibid 611.

[25] Unconscionable terms are those judged to be extremely unfair and oppressive; such terms invalidate a contract. To succeed on a claim of unconscionability, a party must prove that both the contract terms unreasonably favour the other party and that a 'gross inequality of bargaining power' exists that leaves the claiming party with no meaningful choice as to the terms of the agreement. The court considers the reasonableness of the terms under the commercial standards used at the time of the contract's formation. Unconscionable terms are those 'so extreme as to appear unconscionable according to the mores and business practices' used at the time.' see N. Kutler 'Protecting Your Online You: A New Approach to Handling Your Online Persona after Death' (2011) 26 Berkeley Tech. L.J. 1641; U.C.C. § 2-302 (amended 2003); *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445, 449 (D.C. Cir. 1965); *Carnival Cruise Lines, Inc. v. Shute*, 499 U.S. 585, 600-01 (1991).

said that the terms left the plaintiff with no effective remedy.[26] The court applied the Californian law in its analysis of the contract and noted that to find unconscionability in California, it must find both procedural and substantive unconscionability.[27] It found both elements and concluded that the arbitration clause was unconscionable.[28]

This case has not decided on the issue of VP. The property claim was initially brought up by Bragg, who had asserted that his in-game assets are in fact his property (his land, fireworks and different other items he possessed).[29] The court, unfortunately, did not discuss it, so VP, as demonstrated later, remains on the level of academic debates.

3.1.3.2. Evans case: account suspension and settlement

In a more recent case, again involving Second Life and Linden, another chance of discussing VP by a court and providing us with some guidance on this issue has been lost. In the case of *Evans et al. v. Linden Research, Inc. et al*.,[30] the central was fairness and validity of the contract (provisions about the suspension of accounts and

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[26] Bragg ibid 611, for more see S Hetcher, 'User-Generated Content and the Future of Copyright: Part Two - Agreements Between Users and Mega-Sites' (2008) 24 Santa Clara Computer & High Tech. L.J. 829, 836.

[27] *Bragg* ibid 605 ('The procedural component can be satisfied by showing (1) oppression through the existence of unequal bargaining positions or (2) surprise through hidden terms common in the context of adhesion contracts. The substantive component can be satisfied by showing overly harsh or one-sided results that 'shock the conscience.' (citing *Comb v. PayPal, Inc*., 218 F.Supp.2d 1165, 1172 (N.D. Cal. 2002); Ibid 606 ('The critical factor in procedural unconscionability analysis is the manner in which the contract of the disputed clause was presented and negotiated.' (citing *Nagrampa v. MailCoups, Inc*., 469 F.3d 1257, 1282 (9th Cir. 2006)); Ibid ('When the weaker party is presented the clause and told to 'take it or leave it' without the opportunity for meaningful negotiation, oppression, and therefore procedural unconscionability, are present.' (citing *Nagrampa,* 469 F.3d at 1282)).

[28] Ibid 611 ('Finding that the arbitration clause is procedurally and substantively unconscionable, the Court will refuse to enforce it.').

[29]Ibid 585.

[30] No. C 11-01078 DMR. United States District Court, N.D. California. November 20, 2012.

users compensation). Herein, a group of users claimed to own their VAs[31] and complained that they purchased virtual items and/or virtual land and later had their accounts unilaterally terminated or suspended by Linden. These players were not compensated for the value of the virtual land, items, and/or currency in their accounts. In addition, the plaintiffs claimed that Linden made false representations about ownership of virtual land and virtual items, and wrongfully confiscated these items from the class members they sought to represent.[32] Linden disputed the claimed ownership in VAs, recognising, however, IP rights in users' creations, copyright in particular. They maintained that copyright in user's creations is indisputable; however, it has been licensed to Linden and they are entitled to remove a licensed copy from their servers.[33]

Again, there was no decision in respect of VP. The case was settled[34] and Linden agreed to do the following: return up to 100% of the U.S. dollar balances to the PayPal accounts of the plaintiffs; return up to 100% of the Linden dollar balances in class members' accounts; pay two Linden dollars per square meter of virtual land held by class members; and regarding virtual items, to pay $15 per class member to his or

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[31] The Plaintiffs asserted: 'The code, obviously, resides on a server. And the server then, you know, or the code creates a virtual world. There's a map. There's a map just like there would be a real world map. And there's [sic] locations on the map. Similar in the sense that the internet, as an example, is really a map of various addresses. So if you own a domain name, you know, what do you own? You own the domain name. So in a virtual world, when you own a piece of land, you own the piece of land that corresponds on the map to that location that you purchased. So it's similar to a domain name in the sense that there's a specified location on a map and that's what you own. And it's part of the overall world. It's part of the overall Second Life world.' (Hr'g Tr. 27:12-28:11.)

[32] Ibid.

[33] Linden claimed 'What you owned you still own. If you owned the copyright, you still do. Nothing — there is no allegation that any cognizable property right has been taken away from anyone as a result. The property right here is a copyright and it is never taken away. Our right to remove the bits from our servers of a copy that you licensed to us, is not a property right that the plaintiff ever owned. There's no coherent allegation that there is any such property right. It is not real property. It's not personal property; it is an intellectual property.' Ibid (Hr'g Tr. 37:7-10; 39:17-24; 53:15-24.).

[34] *Evans et al, Plaintiffs, v. Linden Research, Inc. et al*, No. C-11-01078 DMR. United States District Court, N.D. California. October 25, 2013.

her PayPal account or let the class members attempt to sell their virtual items on the Second Life Marketplace, whereupon Linden will waive Second Life's commission on the sales.[35] This example might illustrate Linden's attitude and concerns over VP and willingness to compensate the users instead of proceeding with the case which might find some kind of property in virtual items and land and have unwanted consequences for Linden (user's control, transfer, transmission and other incidents identified in chapter 2). On the other hand, the fact that the court, as in *Bragg*, avoided a decision on virtual property and turned to contracts and IP, demonstrates again their reluctance to engage and make such a radical legal and policy decision. This reasoning is justifiable from a normative and doctrinal perspective, as suggested later in this chapter.

[35] See the confirmation of settlement in *Evans et al v. Linden Research, Inc. et al* No. C-11-01078 DMR, United States District Court, N.D. California, November 20, 2012.

In addition to *Bragg* and *Evans*, there have been two virtual theft[36] cases in the Netherlands[37] and one in China.[38] These cases are, however, examples specific to

[36] Virtual theft can take place both as an 'outsider' and an 'insider' activity. From outside the game VT usually occurs by the way of an unauthorised access to another person's VW account or by using game bugs to obtain access to the player's items in game. See more J W Nelson 'A Virtual Property Solution: How Privacy Law Can Protect the Citizens of Virtual Worlds' (2011) 36 Okla. City U. L. Rev. 395, 413 and Arias (n 9) 1306-1307.

[37] The first cases involved the VW Habbo Hotel and concerned a teenager who used phishing techniques to acquire passwords and usernames of other players and then allegedly logged into these accounts and transferred their furniture worth thousands of dollars to him and his friends. The charge in this case was theft, as the rules of the world did not allow it either. Kerr (n 9) 422-423; *BBC* 'Virtual Theft Leads to Arrest' (14 November 2007) http://news.bbc.co.uk/1/hi/7094764.stm accessed 15 May 2016. The case was decided and the perpetrators convicted in 2009, but it had not been appealed. Lodder (n 9) 3. The second case involved Runescape, where in 2007, 15 and 14-year old robbed the account of a 13-year-old boy. The victim previously acquired valuable items in Runescape. The offenders attacked the victim in real world, used violence against him forcing him to log on to his account, and then used his account to transfer the valuable items (an amulet, a mask, and coins of the victim's account). In the subsequent proceedings, in 2008, Lower Court Leeuwarden decided that this was the case of theft, as after the conviction regarding theft of electricity in 1921, the Dutch criminal law does not require tangibility of an item in order for a theft to occur. The Court of Appeal Arnhem and the Supreme Court confirmed the first instance decision, including the reasoning about tangibility and value of virtual items in question, stating that the item has value for the victim, and that it can be taken away, therefore the case qualifies as theft. The Supreme Court did not proclaim virtual items property, as it was not necessary for the purpose of the criminal case. The theft crime is considered with dispossessing a person who has an exclusive power over an object, e.g. possessor, hirer etc., and does not refer to ownership and the owner. Instead, the Court merely decided that these items have value and a player enjoys exclusive powers over the items, without questioning the property relationships within the game and rights of providers. Lodder (n 9) 3, 4, 8.

[38] The first case where any court recognised VP happened in China in 2003. In this case Mr Li Hongchen, player of the game called Red Moon, HongYue, the Beijing Chaoyang District People's Court ordered the developer, Beijing Arctic Ice Technology Development Company, to return VP to Mr Li, stolen from him after a hacker hacked into the company's systems. Mr Li claimed that he spent years, much effort and money in producing his biochemical weapons, and that the provider didn't adequately protect his property worth about twelve hundred dollars, so that due to their negligence, his property had been stolen. The court agreed and rules in the favour of Mr Li. W Knight 'Gamer Wins Back Virtual Booty in Court Battle' (*NewScientist.com*, 23 December 2003).

http://www.newscientist.com/article/dn4510-gamer-wins-back-virtual-booty-in-courtbattle.Html accessed 15 May 2016; J Lyman 'Gamer Wins Lawsuit in Chinese Court Over Stolen Virtual Winnings' (*TECHNEWSWORLD*, 19 December 2003) http://www.technewsworld.comystory/3244Lhtml accessed 15 May 2016; Shikowitz (n 8) 51;

these civilian countries and should not be regarded as an indication of a general approach. It is uncertain whether the US or English criminal courts would recognise VP in the theft cases, in the absence of relevant case law in these jurisdictions. Moreover, even if, eventually, cases were prosecuted in the courts of the jurisdictions relevant to this thesis, the outcomes would not provide a firm argument for VP. The reason for this is in that the rationale and definition of property in criminal cases is quite different from the definition in civil cases (see section 2.3.1). Consequently, there is limited value in considering these cases and criminal law herein. In the lack of case law worldwide, the cases have been mentioned here to illustrate some different outlooks on virtual property, rejecting their substantive relevance for the purpose of this thesis.

To summarise, the scarce Western VWs case law illustrates the potential disputes that might arise in VWs, i.e. ownership, property claims and disputes over VWs contracts provisions. However, the cases have only opened a floor for more debates and do not provide guidance as to whether there is property in VWs. Furthermore, the disparate approaches in these cases are based on very different legal and cultural traditions (see section 2.3.). Finally, the cases focused on the second layer (see the classification in the below section, i.e. different items in Second Life, such as fireworks, avatars, weapons or land) and this layer, as demonstrated later in this chapter, is most problematic and worth examining in detail. Also, it is interesting to note that Linden has explicitly admitted players' IP rights in *Evans* (the third layer, according to the classification below). This layer is, therefore, much less disputable and will not be discussed in detail herein, as explained further in the following section.

Notwithstanding the vagueness left by these cases, this chapter will assess whether there is property in VWs, who owns this property and, finally, if existent, how this property transmits on death. Before discussing these issues, it is important to identify what are the potential objects of VP, i.e. VAs. The following section will present a

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Glushko (n 8) 518; Li V. Beijing Arctic Ice Tech. Dev. Co. (Beijing Chaoyang Dist. People's Ct., Dec. 18, 2003), available at http://www.chinacourt.org/public/detail.php?id=143455 accesses 15 May 2016.

classification of virtual assets as possible objects of property in VWs. This classification will be used as a basis for the analysis throughout this chapter.

3.2. Layers of virtual assets

Most virtual property theories tend to confuse different types of code and content in VWs, equating the underlying software (the building blocks of VWs) and the user generated content (virtual assets). In this regard, Abramovitch offers a helpful theory and proposes three layers (or levels) where property/VAs can possibly be identified within VWs.[39]

At the *first layer*, there is developer's code, protected by IP as software. This level, therefore, represents software and code that determines properties, features of VWs, user's actions and behaviours.

At the *second layer*, Abramovitch identifies objects or items inside the VW, which resemble real-world items (objects like avatars, weapons, buildings, clothing, cars, spaceships, houses). This layer mimics real-world objects and includes a perception of physicality from a user's point of view.

At the *third layer*, she identifies in-game virtual assets that could potentially be protected by intellectual property (e.g. a book that is found lying on a table inside the VW, paintings, statues). This is essentially the user's creative work inside a VW, and it is different from the second layer in that it may lack physicality and does not mimic the real-world objects. The difference between the two layers can be further analogised with the division of property rights in a physical object and copyright in work embedded in that physical object.

The layer approach is useful for the purpose of the analysis in this thesis for two main reasons: first, it is more nuanced as an approach and does not represent a unified, rigid 'player-deserves-all' (virtual property should belong to the players) or 'the

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[39] S H Abramovitch 'Virtual Property in Virtual Worlds' (*Gowlings.com*, 2009), 1-2 http://www.gowlings.com/knowledgecentre/publicationPDFs/TLI-2009-Susan-Abramovitch-Virtual-Property-in-Virtual-Worlds.pdf accessed 15 May 2016.

developer-deserves-all' perspective (property in servers/IP in software should extend to the virtual realm), usually found in the early 2000s literature. These two approaches fail to recognise, on the one hand, *consitutionalisation* of virtual worlds (explained later in section 3.5.) and their significance for the player; and on the other, intellectual property interests of the developers.

Second, this approach acknowledges the Internet architecture and the fact that significant investments are made by the world owners, arguing at the same time for assessing the rights of the users at a different game level.

Third, this differentiation offers a possibility to discuss and suggest recognising various legal concepts at different levels of code/virtual reality, and offer some compromise and more widely acceptable legal solutions.[40] Protection for the different layers can be provided for by intellectual property, property, limited real rights (rights on the property of another) or contracts, depending on the characteristics of an individual layer.[41]

The analysis in this chapter will accept and use this classification, focusing primarily on the second layer.[42] This layer has been discussed in the court cases illustrated in section 3.1.3. Of course, the courts have not identified VAs using this classification, but the disputes in *Bragg* and *Evans* concerned VAs such as land and different other items clearly belonging to our second level.

The reason for excluding in-depth discussion of the first layer is in that it is much less disputed and the underlying code indeed belongs to the developer (protected by copyright or patent in software; and property in physical servers).[43] The first layer will

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[40] Erlank (n 1) 182.

[41] Ibid.

[42] For more details about the copyright protection in VWs see S R Dow *et.al.* 'Authorship in Virtual Worlds: Author's Death to Rights Revival?' (2013) 6(3) *Journal of Virtual Worlds Research* 1; or D Miller, 'Determining Ownership in Virtual Worlds: Copyright and License Agreements' (2003) 22 The Review of Litigation 435.

[43] E.g. cases such as *SAS Institute v World Programming* C-406/10 and *Nova Productions v Mazooma Games* [2007] RPC 25 suggest that graphics in computer games could be regarded as artistic works and protected by copyright. In the US, the courts have developed the doctrine of 'cybertrespass' to companies' computer systems or servers, extending the tort of trespass

be discussed only to the extent it relates to or determines the second and third level. Apart from having a clearer legal nature, the first level is beyond the scope of this chapter, as the thesis looks at the player/user's ability to transmit their virtual assets on death. The first layer assets are a company's assets, and their succession is regulated differently, using rules of company law.

The third layer will be mentioned sporadically, but IP issues will not be analysed in detail. This thesis considers novel issues in the transmission of digital assets on death; transmission of IP rights to heirs is not in dispute, if players' creations meet copyright requirements (see section 4.2.1.).

In order to emphasise the main distinction between VWs and other assets discussed in this thesis, property and proprietary rights in the second layer will be the focus. The main reason for this is the peculiar aspects of the assets on this level, namely, physicality (for more detail, see section 3.5.).

3.3. Virtual property

Virtual Property is a theoretical construct about property rights in the items and resources originating and existing in VWs. Much has been written *pro* and *contra* the recognition of virtual property. However, it is still a concept existing primarily in academic discussions, and courts or legislators have not recognised its importance. There have been some judicial attempts to address virtual property (see *Bragg* or *Evans* above), but there have not been any legislative efforts at all. This section aims to shed some more light on virtual property, i.e. to explore whether there should be property rights in VWs, and if not, what are the potential alternatives.

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to cyberworld. See ***eBay v Bidder's Edge Inc*** 100 F Supp 2d 1058 (ND Cal 2000) or *Ticketmaster Corp., et al. v. Tickets.com, Inc* No CV 99-7654 (CD Cal 27 March 2000). For more see M Carrier and G Lastowka 'Against Cyberproperty' (2007) 22 Berkeley Tech. L.J. 1485.

3.3.1. The legal status of virtual property

This section will look at whether VP and VAs share features of property and property objects identified in chapter 2.

First, the discussion will assess whether Honoré's and Becker's incidents of property could be found in VP. Second, we will explore the leading analysis of VP and its features, i.e. Fairfield's theory. He lists three major criteria, incidents of property, borrowing from the law, and economics literature. The main incidents, coinciding with those identified in the first chapter, are the following: rivalrousness, permanence, interconnectedness (see section 2.2.4.). Castronova et. al. use the same incidents as those inherent in the physical objects, attempting to define and justify VP.[44] Some of them identify further incidents (such as scarcity,[45] or secondary markets, and 'value-added-by-users'[46]). The analysis in the following section will add tangibility to this list, as an important feature of property historically, and still retained as such by some jurisdictions (England, for instance, see section 2.2.4.).

3.3.1.1. Honoré's incidents

As discussed in chapter 2, one of the most influential theories of the property incidents has been offered by Honoré (see section 2.2.1.). His eleven exhaustive incidents (the right to possess, the right to use, the right to manage, the right to the income of the thing, the right to the capital, the right to security, the rights of transmissibility and absence of term, the prohibition of harmful use, liability of execution, and the incident of residuarity) could be applied to our individual VP layers. For the first layer (owned by developers), all of the incidents are present.

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[44] 'Virtual Worlds are virtual because they are online, but they are worlds because there is some physicality to them.' Castronova (n 5).

[45] Castronova ibid, some authors however claim that scarcity is artificially created, coded, and usually for the reasons of provider's economic benefits See Lastowka (n 17) 135; Erlank (n 1) 270, 271.

[46] Blazer (n 7) 139.

Looking at the second level VP, only a few of these seem to be present on the side of the players, i.e. the right to possess, the right to use, the prohibition of harmful use and the right to the income of the thing (to an extent, and depending on the type of the VW). Most of the other incidents are in the hands of the providers (i.e. the right to the capital, the right to security, the rights of transmissibility and absence of term, the liability of execution, and the incident of residuarity and the right to manage). Ownership of the third level VP encounters similar difficulties, and this layer possesses the same incidents as the second one. In addition, it could be argued that it possesses the right to transmissibility (as IP does), but not the absence of term, since most contracts recognise IP in the players' creations, without recognising property at the same time (see section 3.4.). If we were to recognise VP, these incidents, according to Honoré, would need to be included for full ownership to exist.

3.3.1.2. Becker's incidents

Building on Honoré's analysis, Becker proposes thirteen elements, i.e.: the right (claim) to possess, the right (liberty) to use, the right (power) to manage, the right (claim) to the income, the right (liberty) to consume and destroy, the right (liberty) to modify, the right (power) to alienate, the right (power) to transmit, the right (claim) to security, the absence of term, the prohibition of harmful use, liability to execution, residuary rules (see section 2.2.1.).[47] He further argues that anyone who has one of the first eight elements plus the right to security, that person has a property right.

Again, there is no dispute about the first layer VAs. The second layer would lack the right (liberty) to consume and destroy (destroy in particular), the right (power) to alienate (for some VWs), the right (power) to transmit, the right (claim) to security, the absence of term, liability to execution, residuary rules. Therefore, the bundle of eight rights is not present here, and VP would mean the recognition of these, according to this theory. Similarly, third layer VAs would lack all of these, apart from the right to transmit, as discussed in the section above. Consequently, the theory cannot justify the creation of VP.

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[47] L Becker in J R Pennock and J W Chapman, eds, *Property* (New York University Press, 1980) 190-191.

a) 3.3.1.3. Incidents of property objects vs. virtual property objects

3.3.1.3.1. Tangibility

A potential problem that virtual property in the second and third layers would encounter is their alleged lack of tangibility. This problem would not be as significant for the civil law countries, as they do recognise property in intangibles, either in the civil code, like France,[48] or by establishing a separate category of property, constitutional property like Germany (section 2.3.1.).[49] This could be more difficult for the English common law system, which refuses to consider intangibles property, at least in some cases (information), but decides to recognise it in others, e.g. IP. The US law is more likely to recognise intangibles as property (see relevant cases on propertisation of information, section 2.7.1.).[50]

The intangibility of second layer virtual assets (intangible for the purpose of the classical legal definitions. i.e. lack of real world tangibility, incorporeality, as it consists of code), therefore would present an obstacle for recognising virtual property in English common law (see section 2.7.1.). Fewer issues would emerge in the US, and civil law systems would require legislative interventions (see section 2.3.1. and 2.7.1.). Taking this point even further, it might be suggested that this layer does not

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[48] J Bell et. al. *Principles of French law* (2nd ed. Oxford University Press 2008) 27.

[49] M J Raff *Private property and environmental responsibility: a comparative study of German real property law* (Kluwer Law International 2003).

[50] See important cases about the propertisation of information, *Exchange Telegraph co. Ltd v. Gregory and Co [1896] 1 QB 147; Oxford v. Moss [1978] 68 Cr. App.R. 181*; or generally see N Palmer and P Kohler 'Information as Property' in E McKendrick and N Palmer, *Interests in goods* (Lloyd's of London Press 1993) 187-206. The US common and statute law is readier to recognise property in different types of intangibles (e.g. fresh news). The doctrine of misappropriation is of a proprietary character, as established in I*nternational News Serv. v. Associated Press*, 248 U.S. 215, 250 (1918), see commentary in R Y Fujichaku 'The Misappropriation Doctrine in Cyberspace: Protecting the Commercial Value of "Hot News" Information' (1998) 20 U. Haw. L. Rev. 421.

have to be considered intangible, as it seems tangible to an avatar in a game and if the level of immersion of a player is very high, then consequently, it could be tangible for the player as well.[51] This line of thought, however, at the moment, is highly unlikely to be accepted by the English courts as a suitable legal test for tangibility, as demonstrated in chapter 2 (section 2.2.).

3.3.1.3.2. Separability and a material resource

Penner's analysis of property objects includes a requirement of 'separability' or 'thinghood', meaning that things, in order to be property, must not be conceived of as 'an aspect of ourselves or our on-going personality-rich relationships to others' (see section 2.6.3.).[52] This theory, for instance, would not consider personal data, body parts or blood as property, since they all lack the separability requirement and are aspects of ourselves. Applying this argument to our second layer, and immersion notwithstanding, it could be argued that avatars would lack these criteria whereas the rest of the VAs in this layer would not, as weapons, spaceships, clothes are separable both from the avatar and the player.

Similarly, the definition of property offered by Waldron focuses primarily on 'material resources', 'capable of satisfying some human need or want' (See section 2.2.1.).[53] This definition requires materiality, and not tangibility, and it could be argued that second layer VAs are material resources within VWs, and they do satisfy the player's need for entertainment, creation, competition, trade, education, etc. However, the third layer VAs are less likely to be considered material resources, and this layer encounters the same difficulties as IP does (see section 2.7.3.).

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[51] Erlank (n 1) 287-288.

[52] Ibid 126.

[53] J Waldron, *The right to private property* (Clarendon Press; Oxford University Press, 1990).

3.3.1.3.3. Rivalrousness

The analyses will further be based on the features identified by Fairfield in his seminal work on virtual property. The first feature he analyses is rivalrousness, which means that consumption cannot be common for a rivalrous resource; one person's possession and consumption physically excludes the other pretenders to the same resource (see section 2.2.4.).[54]

Fairfield thus discusses the possibility of applying the traditional concept of property, designed for chattels rather than intellectual property, to virtual property that mimics the real, offline one (layer two VAs). He distinguishes between the computer, software code, designed as non-rivalrous (protected by IP, layer 1) and other types of code, rivalrous, 'designed to act more like land or chattel than ideas'[55] where if one person controls it, the others cannot.

Rivalrousness is, therefore, a physical quality of an object, different from exclusivity, which is an individual's power to control the use of an object (see section 2.2.4.).[56] Other commentators indeed use the term exclusivity as a synonym for rivalrousness.[57] This is, however, wrong, and Fairfield therefore rightly notes that exclusivity is a function of rivalrousness, the quality that can be assigned to non-rivalrous objects by law or technology, for instance (e.g. IP creations and Digital Rights Managment). It is important to note his observation that this code is rivalrous because it is made that way and it is a fundamental part of the Internet.[58] Examples of this code are domain names, URLs, websites, email accounts, and VW items. Fairfield also warns of the confusion in trying to fit all the intangibles in a category of

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[54]C Hess and E Ostrom, *Understanding knowledge as a commons [internet resource] from theory to practice*, (MIT, 2007), 352.

[55] Ibid 1101.

[56] D L Weimer and A R Vining, *Policy analysis* (Longman, 2011) 72.

[57] Westbrook (n 7).

[58] Fairfield (n 7) 1053-1054.

non-rivalrous objects.[59] Other authors who support his stance in relation to virtual property and rivalrousness are for example Horowitz,[60] Blazer,[61] and Westbrook.[62]

Critics claim that VP and VAs are non-rivalrous in nature. Nelson for instance disputes rivalrousness, or rather, exclusivity, of virtual goods using the same examples as Fairfield, i.e. URLs and emails. He claims that the alleged owner cannot control this property to the exclusion of others because according to the contract that a user concludes, the developer retains the ability to control these resources. Similarly, Glushko argues that the ease of copying code in the case of any digital property would undermine the exclusivity of virtual property as well.[63] These authors have again confused the notions of exclusivity, which is an economic and legal feature and relates to the rights conferred by contracts or property, and rivalrousness, which is a purely physical feature, so even if a provider retains the exclusive control over a virtual resource, the fact that only one user at a time can, arguably, physically experience it, means that the resource is rivalrous.

In summary, rivalrousness is a feature of the second level virtual property. The problem with this feature incident is its unstable nature, as it only exists if created in that form by the developer. However, this should not be an issue, since, ultimately, VWs are unstable too and would not exist if they were not created as such by developers. Indeed, players and many theorists (e.g. Lastowka or Mayer-Schönberger, see section 5.3. for more details), including this author, still accept the VWs as such, claiming that however unstable and peculiar places they are, VWs still represent replicas of the real world. In addition, even if we accept that VW items are not rivalrous, this is not a decisive point to discard their protection, since IP resources are not rivalrous either and still are protected like, or similarly to, property.

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[59] Ibid 1063.

[60] S J Horowitz 'Competing Lockean Claims to Virtual Property' (2007) 20(2) Harv. J.L. & Tech. 443.

[61] Blazer (n 7).

[62] Westbrook (n 7).

[63] Glushko (n 8) 251-257.

3.3.1.3.4. Permanence

Permanence or persistence of VWs and in-game assets is another disputed feature, present in the case of physical property and contested in the case of IP (see section 2.2.4.). Castronova defines persistence as the feature of VWs enabling them to 'continue to run whether anyone is using [them] or not.').[64] Fairfield, like Castronova, argues that code is persistent too since 'it does not fade away after each use, and it does not run on one single computer.'[65] The code of a VW can be accessed from a variety of devices, and it is located and persists on the servers of service providers. Thus, according to them, this quality of code makes it analogous to physical objects.[66]

However, this code can be accessed and modified at any given any time by the developer, which is a critical weakness of this argument. Similarly, Erlank notes that permanence depends only on the cooperation of developers, who can make virtual property disappear at any time.[67] Chein warns that VWs are ephemeral and dynamic environments and virtual property can be lost 'at the accidental flick of a power switch'.[68] Cifrino also notes this potential obsolescence of VW business models, giving the example of City of Heroes, a VW which ceased operations in 2012, after eight years.[69]

An issue related to the potential disappearance of VWs is the lack of interoperability between software in different VWs.[70] So, when a user's account has been restricted or terminated by one developer, he cannot move it to another one's platform. There

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[64] E Castronova (n 5) 6.

[65] Fairfield (n 7) 1054.

[66] Westbrook (n 7) 782-783.

[67] Erlank (n 1) 275.

[68] Chein (n 7) 1077.

[69] Cifrino (n 7) 23-24.

[70] Glushko (n 8) 512; J W Nelson 'The Virtual Property Problem: What Property Rights in Virtual Resources Might Look Like, How They Might Work, and Why They are a Bad Idea' (n 7).

have been some efforts of making property in one VW compatible with the software in another VW, but until this is implemented, the quality of permanence remains rather dubious.[71]

Lastowka and Hunter claim that temporality is a weak argument against virtual property. They use the examples of lease or usufruct, both of which are property interests recognised in common law that are time-limited. Due to its time-limited protection (i.e. 70 years post-mortem in the EU and US) intellectual property serves as another example rejecting the objection of temporality, too.[72] Therefore, the issue of the lack of permanence in the second and third layer virtual assets could serve as a solid argument against virtual property, in the classical conceptions of property and its permanence, and if one does not conceive IP as property. On the other hand, notwithstanding the temporality of IP, the lack of this quality might exclude virtual property conceived in the traditional property sense but does not necessarily exclude proposing some other proprietary models for protecting virtual assets (like IP).

3.3.1.3.5. Interconnectedness

Fairfield argues that another physical quality of VW code is interconnectivity, analogous to the characteristic of objects in the real world (a player can experience the connected world; they can interact with each other and the VW, see section 2.2.4.).[73] Like Castronova[74], Fairfield argues that 'code can be made interconnected,

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[71] For more about these efforts, see Vacca (n 7) 22; D Terdiman, 'Tech Titans Seek Virtual-World Interoperability' (*CNET News*, 3 December 2012), http://news.cnet.com/8301-1023_3-57556918-93/curious-case-of-lawsuit-over-value-of-twitter-followers-is-settled/ accessed 15 May 2016 (noting the status of converting VWs to interoperability); Virtual World Interoperability, http://Virtual Worldinterop.wikidot.com/start accessed 15 May 2016 (summarising the results of the 2007 Virtual Worlds Interoperability Community Summit).

[72] Lastowka and Hunter (n 1) 55-56.

[73] Fairfield (n 7).

[74] Interconnectivity (they 'exist on one computer but can be accessed remotely (i.e., by an internet connection) and simultaneously by a large number of people.') E Castronova (n 5).

so that although one person may control it, others may experience it.' As Erlank notes, if there were no interconnectivity in VWs, players would be able to experience only their own property, which is contrary to the whole idea of VWs.[75]

However, the code is not necessarily interconnected, since not all computer systems can run all the code without necessary adjustments and we have a problem of interoperability, as seen in the discussion on permanence in the section above.[76]

3.3.2. Justifications

The doctrinal question, i.e. whether there *is* property in VWs, has been answered in the analysis above. VP does not share incidents of the concept of property and VAs do not possess characteristics of property objects. The following section will answer a normative question, namely, whether there *ought to be* property in virtual worlds.

The key in recognising something as property is to identify the relevant theoretical justifications [77] The next section will, therefore, refer to the leading Western justifications of *propertisation* (labour theory, utilitarianism and personhood theory), discussing the potential of their application to virtual assets and VWs. The analysis will use the layer classifications explained in section 3.2.

3.3.2.1. Labour theory

Many authors contend that Locke's labour theory applies to virtual property. The main argument is that the time and effort users put in while creating virtual assets should

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[75] Erlank (n 1) 246.

[76] Nelson 'Fiber Optic Foxes: Virtual Objects and Virtual Worlds Through the Lens of Pierson v. Post and the Law of Capture' (n 7) 17.

[77] Erlank argues that virtual property could be more easily recognised in common law systems, as these 'just require a good justification' Erlank (n 1) 252.

entitle them to claim property rights (see section 2.6.2. for more details on Lockean theory).[78] The issue of the time players spend in VWs is significant, if we look at the empirical research conducted on this topic.

Relevant research has been ambiguous. Nevertheless, it could be argued that the time actual VWs players spend there is quite considerable. For instance, in 2010, research showed that online video games were the second most used activity on the Internet in the US, resulting in 10.2% of Internet time.[79] This research, however, does not provide data on the use of VWs in particular. In addition, an earlier survey found 35% of adults who use the Internet play online video games, but only 2% visit a VW, such as Second Life. However, the individuals who are active in Second Life average about 40 hours a month in this VW.[80] Mayer-Schönberger and Crowley assert that 9.4 million players are each 'in-world' for about 22 hours per week, claiming that 'subscribers to VWs could be devoting over 213 million hours per week to building their virtual lives.'[81]

On the first obvious question of whether we could consider 'game playing' as labour, it is argued that labour in the form of 'grinding' can be deemed as relevant for the purpose of labour theory. Grinding is a series of repetitive menial actions in VWs, completed in order to level-up one's character.[82] In addition, the quality of labour can be demonstrated by looking at the phenomenon of 'gold farming'. Gold-farmers are a particular subset of users who dedicate their hours 'in game' specifically to creating

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78 Shikowitz (n 8) 1015-1054.

79 M. Lasar 'Most Internet time now spent with social networks, games' (*Arstechnica* 2010) available at: http://arstechnica.com/business/2010/08/nielsen-social-networking-and-gaming-up-email-uncertain/ accessed 15 May 2016.

80 A Lenhart, S Jones and A Macgill, 'Adults and Video Games' (*Pew Internet* 2008) available at: http://www.pewinternet.org/Reports/2008/Adults-and-Video-Games/1-Data-Memo/07-Virtual-worlds-and-MMOGs-have-yet-to-catch-on.aspx accessed 15 May 2016.

81 Mayer-Schoenberger and Crowley (n 6) 1787; H Mahmassani et.al. 'Time to Play? Activity Engagement in Multiplayer Online Role-Playing Games' (2010) *Journal of the Transportation Research Board*, 129-137.

82 A E Jankowich 'Property and Democracy in Virtual Worlds' (2005) 11 B.U. J. Sci. & Tech. L. 173, 183.

assets of value for the purpose of later sale on in-game or grey markets.[83] Gold farms or 'gaming workshops' are places that might employ a few dozen such farmers who perform various tasks specific to a certain game, in order to build up virtual currency for the farm owners.[84] Although the data is rather uneven, there are some quite staggering estimates of the value of this 'virtual economy'. Heeks, for instance, estimated in 2010 that approximately 400,000 people are employed in gold farming, of which perhaps 85% are based in China. Ryan estimates one million gold farmers working on a global trade worth more than $10 billion.[85] Therefore, the labour is already recognised as such in these black or grey markets.

The argument against applying labour theory to VWs is that most players play games for entertainment purposes and not gold-farming or labouring in general. Therefore, the time spent playing a game cannot qualify as adequate labour for the purpose of labour theory.[86] Erlank replies to this objection by noting that not all VW worlds are used for the purpose of entertainment (some are indeed used for many other purposes, including education, business, politics), and that the real world also rewards individuals who play games there, giving an example of athletes (professional ones are paid). Second, he comments that some players do indeed 'labour' by 'painstakingly' repeating the same actions in order to reap an award, like blacksmiths for instance (referring to aforementioned grinding).[87]

Advocates of applying Locke's theory to virtual property also argue that it is relatively easy to satisfy Locke's 'enough and as good' proviso in VWs (in short, that an individual can appropriate an object under the condition that there is enough and as

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[83] R. Heeks 'Understanding "Gold Farming" and Real-Money Trading as the Intersection of Real and Virtual Economies' (2010) 2(4) Virtual Economies, Virtual Goods and Service Delivery in Virtual Worlds 1, 6.

[84] Ibid 7.

[85] Ibid.

[86] Lastowka and Hunter (n1) 46; Erlank (n 1) 153.

[87] Erlank (n 1) 98.

good left for the others, the proviso subsequently revised by Locke[88]). In VWs, arguably, there is an infinite number of resources available to the players to labour and create.[89] This, however, does not have to be self-evident, as the abundance of the VW resources depends on the developers' will and actions and for some of them the users need to pay and do not labour upon them (e.g. land in Second Life). The developers, therefore, artificially create a scarcity of resources in the virtual world. On the other hand, arguably, in-game resources are available to all players under the same conditions, and the developers can adjust the scarcity feature, making more resources available if needed. Consequently, looking at a VW as a self-contained entity, this proviso seems fulfilled.

According to the proponents of applying labour theory to virtual property, Locke's spoilage proviso is also satisfied (the argument that the labourer is limited to 'as much as anyone can make use of to any advantage of life before it spoils.').[90] The argument is that for the obvious reasons of the nature of virtual assets (underlying code that determines them), they cannot be spoilt, similar to money. Therefore, the limitation is unnecessary for VWs, since developers produce virtual assets and/or enable their creation by players and the limitation is embedded in the underlying VW's code.

Lastowka and Hunter indicate that this justification for virtual property can be criticised on the basis of Nozick's general objection to Locke's theory, viz. that the labour which users embed in the VWs is insignificant compared to that of the owners of VWs (see section 2.6.2.).[91] Opponents of Nozick's argument argue that for some property, labour, no matter how insignificant it seems, adds value to the resource and recreates

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[88] With the introduction of money as property, Locke's removed the spoilage and enough and as good limitations for the reason that money does not spoil. The enough and as good proviso is abandoned with the development of commerce and the consent to use money. C B Macpherson in J Locke *Second treatise of government, Essay concerning the true original extent and end of civil government* (first published Crawford Brough 191; Indianapolis, Ind.: Hackett Pub. Co. 1980, with the preface by C. B Macpherson), p XVII.

[89] Ibid 64-65.

[90] Ibid 60.

[91] Lastowka and Hunter (n 1) 97; R Nozick *Anarchy, state and utopia* (B. Blackwell 1974), 175.

the essence of it.[92] Similarly, Lastowka and Hunter reply to this objection arguing that this is correct in the sense that a player cannot claim property in the whole VW, but deserve property in the items where their labour makes up the greatest part of the value. They also assert that players do not claim property in the world itself, but rather their items and avatars.[93]

The most commonly articulated objection to applying Locke's theory to virtual property is the same one used against propertisation of IP, i.e. the absence of commons.[94] According to this argument, the initial stage from which appropriation takes place, the commons, does not exist here and VWs are not common *ab initio,* but usually owned by the developers. Therefore, they seem to have better claims according to labour theory, as they actually invest their labour and resources in creating VWs.[95] Cifrino shares this stance, noting that if any labour, and not only labour on the initial commons, would create property rights, then borrowing and sharing of any object would be a problem if someone later labours on that object and claims the title allegedly resulting from that labour.[96] Other authors reply to this contending that the comparison could be made to Locke's commons created by God and VWs's commons created by their 'gods', or someone with godlike powers, the developers.[97] In addition, for those arguing that IP is property, in essence, the absence of commons can be bypassed and interpreted widely, as it has happened practically.[98]

Prima facie, labour theory presents a good justification for recognising property in the second-level VW's code, as this code satisfies the labour requirement and the two

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[92] G S Alexander and E M Peñalver *An Introduction to property theory* (Cambridge University Press 2012) 48.

[93] Lastowka and Hunter (n 1) 63.

[94] See S V Shiffrin 'The Incentives Argument for Intellectual Property Protection' (2009) 4 J.L. Phil. & Culture 49, 96; R P Merges, *Justifying intellectual property* (Harvard University Press 2011) 35-39.

[95] Horowitz (n 60), 443-458.

[96] Cifrino (n 7).

[97] Erlank (n 1) 156-157.

[98] [98]See e.g. J Peterson 'Lockean property and literary works' (2008) 14(4) Legal Theory, 257.

provisos (spoilage and 'enough and as good'). In addition, a player's labour constitutes the greatest part of the value of the virtual assets. For the first level items, understandably, developer's labour and investments constitute the biggest part of its value; therefore, they should be entitled to own this layer.

However, the lack of the commons here is problematic as one cannot argue that there is any common of ideas, facts or resources in VWs[99]. One way to neutralise this limitation would be recognising the godlike powers of the developers and analogising them with God and Locke's common. Alternatively, if the second layer is perceived separately, and in relation to the other players and not the developer, then VWs features, which are open to all, can be seen as the commons. It is argued here, however, that this argument is not plausible, mainly because labour put in by different individuals does not change the entire world, and the first layer remains developer-owned. Even if, arguably, there is a radical change in some instances (e.g. Second Life where users do change the landscape significantly), this change does not defeat the property in the first layer. Locke's theory here thus serves better the interests of developers.

3.3.2.2. Personhood theory of virtual property

Personhood theories originate from Hegel's conception of property as an extension of personality,[100] and Radin's classifications of property as fungible and personal. For Radin, property is an essential vehicle for the development of the personality, and therefore, property which is especially close to person's self-definition deserves special legal protections and precedence over fungible property (see section 2.6.3.).[101]

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[99] Apart from perhaps, open sources games, which are not in the focus of this analysis.

[100] G W F Hegel, *The Philosophy Of Right* (first published 1821, translated by Knox, Oxford University Press, 1967), para 41.

[101] M J Radin, 'Property and Personhood' (1982) 34 Stan. L. Rev. 957.

This theory is, arguably, more applicable for justifying property interests in virtual assets than to justify traditional property.[102] In VWs, players are represented by a character, an avatar,[103] which is essentially a player's agent for interacting with the environment.[104] An avatar, and consequently a player, generally leads a more or less full, rich, and interesting life in VWs, often as a simulation of the real world. Using their avatars but also offline, in the real world, players communicate and socialise with others, and gain reputation and social capital.

In most VWs, players usually establish extremely firm ties with their avatars, conceiving them as extensions of themselves, their psychological embodiments, *alter egos*.[105] A large body of research of VWs confirms this, referring to the concept of immersion.[106] Bartle, for instance, argues that VWs are all about 'the celebration of identity' and summarises the path players follow in the game in the phrase: 'locate to discover to apply to internalise'. This means that as the player develops, he travels from acquiring the skills for achieving something in the world, whatever the goals are, to exploring the world and applying the skills. The journey terminates with internalising the world and with complete immersion in it.[107] The concept of immersion in VWs is

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[102] Lastowka and Hunter (n 1).

[103] Castronova (n 5).

[104] More about avatars, history, and use in VWs, Lastowka (n 17) 45-46 or Dibble (n 3).

[105] Lastowka (n 17) 46, or D Williams, T Kennedy and R. Moore 'Behind the Avatar: The Patterns, Practices and Functions of Role Playing in MMOs' (2011) Games & Culture 171.

[106] Y Lee and A Chen 'Usability Design and Psychological Ownership of a Virtual World' (2011) 28(3) J Manage Inform Syst 269; D A Bowman and R P McMahan 'Virtual Reality: How Much Immersion Is Enough?' (2007) 40(7) *Computer,* 36-43; M L Ryan 'Immersion vs. Interactivity: Virtual Reality and Literary Theory' (1999) (28)2 SubStance, 110; K Cheng and P A Cairns 'Behaviour, Realism and Immersion in Games' (2005, ACM: Proc. Portland OR) http://www.uclic.ucl.ac.uk/paul/research/Cheng.pdf accessed 15 May 2016; L Ermi and F Mayra 'Fundamental Components of the Gameplay Experience: Analysing Immersion' (2005, DiGRA: Proc. Second International Conference, Vancouver) http://www.uta.fi/~tlilma/gameplay_experience.pdf accessed 15 May 2016; P Sweetser and P Wyeth 'GameFlow: A Model for Evaluating Player Enjoyment in Games' (2005) 3(3) ACM Computers in Entertainment article 3A http://www.itee.uq.edu.au/~penny/_papers/Sweetser-CIE.pdf accessed 15 May 2016.

[107] R A Bartle 'Virtual Worlds: Why People Play' in T Alexander *Massively Multiplayer Game Development 2*, (Charles River Media 2005) 3-18 http://www.mud.co.uk/richard/VIRTUAL

tied to presence and an illusion that this computer-mediated environment is not in fact mediated, but real.[108] The result of this 'hill-climbing activity through identity space' is 'that players understand themselves more' [109] Similarity, Lastowka shows immersion using the example of the use of language and the pronoun 'you' when referring to another person's avatar and 'I' for his own avatar's actions.[110]

The argument against using this theory to justify virtual property is found in the inalienability of personal property, as suggested by Radin and achieved, for instance in the case of moral rights on the Continent.[111] The result of this would be, therefore, proclaiming the avatars and other second level virtual assets inalienable, since they are so intrinsically related to a person. This is, however, not desirable, since some users in some of the VWs do want to trade their avatars and the avatars often reach a considerable price on the markets.[112] Lastowka and Hunter maintain that even if this could be the case, on the practical side, it is not a certain outcome, as the courts might conclude otherwise and permit virtual trade.[113] In addition, if classified as personal property, virtual assets would be protected better than the fungible property, i.e. the developers' property, raising more disputes rather than providing solutions.[114] On the

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WORLDWPP.pdf accessed 15 May 2016; 'Presence and Flow: Ill-Fitting Clothes for Virtual Worlds. Techné: Research in Philosophy and Technology' (2007) 10(3) Techné: Research in Philosophy and Technology 39.

[108] M Lombard and T Ditton 'At the Heart of it All: The Concept of Presence' (2004) 3(2) J Comput-Mediat Comm http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.1997.tb00072.x/full accessed 15 May 2016.

[109] Ibid 15.

[110] Lastowka (n 17) 46.

[111] See J Hughes, 'The Philosophy of Intellectual Property' (1988) 77 Geo. L.J. 287; B Hugenholtz, 'Copyright and freedom of expression in Europe' in N. Elkin-Koren and N. Netanel, *The commodification of information* (Kluwer Law International 2002) 239, 240-241; P Rigamonti 'The Conceptual Transformation of Moral Rights' (2007) 55 Am. J. Comp. L. 67-122, 98.

[112] Cifrino (n 7) 16; Lastowka (n 17) 176-177.

[113] Lastowka and Hunter (n 1) 65-66.

[114] Erlank (n 1) 175-177.

other hand, the fact that something might be deemed non-transferable does not necessarily exclude its proprietary character (e.g. common, public property).

An objection to this theory in general, and its application to virtual assets in particular, can be found in the argument of 'separability' or 'thinghood', meaning that things, in order to be property, must not be conceived of as 'an aspect of ourselves or our on-going personality-rich relationships to others' (or e.g. blood, body parts, personal data, see section 2.6.3.).[115] This objection is particularly applicable to avatars as property, having in mind the rich relation between the players and their avatar but is less applicable to the other VWs items (swords, castles, houses, etc.).

To conclude, personhood theories could potentially serve as a sound basis for justifying virtual property in the second and third level of code in VWs, those closely related to the player's personality, his items and creations. The application of this theory, as demonstrated above, is not without difficulties and dilemmas and would not always serve the interests of the players (e.g. sale of avatars and other virtual assets).

3.3.2.3. Utilitarian theory

Amongst the theories used in this chapter, the utilitarian theory is least applicable to justify virtual property in the second layer virtual assets. The main problem would be in the usefulness of virtual property for society, real world, non-players. It would potentially conflict with the felicific calculus principle of utilitarianism, looking for 'the greatest good for the greatest number' (see section 2.6.1.).[116] Lastowka and Hunter, however, would not agree with this assertion, claiming that in-game assets, from the utilitarian perspective, do not need to be useful for society, but they are surely helpful and valuable for the individuals engaging in creating and improving these assets. Therefore, for them, if the society (VW) is perceived as an aggregation of individuals

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[115] See J Penner, *The idea of property in law* (Clarendon Press; Oxford University Press, 1997) 126.

[116] J Bentham, *An Introduction To The Principles Of Morals And Legislation* (first ed. 1789, J.H. Burns & H.L.A. Hart eds., Athlone Press 1970) 12-13.

(players), the utilitarian concept perhaps could be used. According to these views, by recognising virtual property, users would be rewarded for their efforts and incentivised to create further and develop VWs.[117] An example for this could be found in the exponential growth of Second Life users after Linden Labs changed terms of service and promised ownership over players' creations.[118]

On the other hand, players are already incentivised to create, and one of the major factors why they choose to join a particular VW is creation; therefore, property in virtual assets would probably not make much difference. Being in VWs already potentially results in economic benefits for the players. Players can exchange their virtual assets for real money in many VWs, known as Real Money Trading (RMT). RMT includes two main components: primary, the one that takes place within the game and is in accordance with the End User Licence Agreements (EULAs)[119], and secondary, which happens outside the game and beyond the EULAs provisions. The players usually make money from the sale of virtual assets on online auctions within or outside the VW (some of the VWs expressly ban the use of external auctions, e.g. Blizzard, WoW EULA). For instance, in 2006 Anshe Chung accumulated more than one million dollars in virtual assets, becoming the first millionaire of the popular VW Second Life.[120] In December 2009, a person known as 'Buss Erik Lightyear' paid

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[117] See W M Landes and R A Posner, *The Economic Structure of Intellectual Property Law*, (Harvard University Press 2003); 'An Economic Analysis of Copyright Law' (1989) 18 J. Legal Stud. 325, 326; S Leung, 'The commons and anticommons in intellectual property' (2010) UCLJLJ. 16; S Kieff, 'Property Rights and Property Rules for Commercializing Inventions' (2001) 85 Minn. L. Rev. 697; E W Kitch, 'The Law and Economics of Rights in Valuable Information' (1980) 9 J. Legal Stud. 683.

[118] Vacca (n 7).

[119] The EULA is a software license between the developer and the user (and generally drafted by the developer) that governs the relationship between these two parties. The EULA is generally presented as a graphical computer window that pops up when the [user] of the software begins running the program. The [user] is then presented with the terms of the license, and must click a button indicating that he/she has read and accepted those terms. The software will only begin running if the user agrees to the EULA. (see ibid 43).

[120] R Hof, 'Second Life's First Millionaire' (*Businessweek Online*, 2006)

http://www.businessweek.com/the_thread/techbeat/archives/2006/11/second_lifes_fi.html accessed 15 May 2016.

$330,000 to own a virtual space station in Planet Calypso, an MMORPG.[121] The game allows exchanges between virtual currency and real dollars at a fixed exchange rate of 10 PED (virtual currency) to $1 US dollar.[122] Wu estimates that the market for virtual goods in the U.S. exceeded $3 billion in 2012 and 'is expected to grow briskly in later years.'[123] In 2013 Linden Labs reported 1.2 million daily transactions for virtual goods and a total of $3.2 billion of transactions worth in Second Life Economy.[124] However, it is still unclear whether there could be a further explosion in the numbers of VWs users and their transactions, provided that virtual property is recognised.

The incentives argument, therefore, works much better for the developers. Creating and maintaining a VW can be a very profitable business deal as they can earn from various sources, e.g. subscriptions, virtual sale commission, purchase of land and other features.[125] In order to achieve this, understandably, they need to have a significant user base,[126] incentivised perhaps by virtual property rights. In addition,

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[121] M Schramm 'Man buys virtual space station for 330k real dollars' (*Joystiq* 2010) http://www.joystiq.com/2010/01/02/man-buys-virtual-space-station-for-330k-real-dollars/ accessed 15 May 2016.

[122] S Brennan, 'Crystal Palace Space Station auction tops 330,000 US dollars' (*Joystiq,* 2009) http://massively.joystiq.com/2009/12/29/crystal-palace-space-station-auction-tops-330-000-us-dollars/ accessed 15 May 2016.

[123] S Wu 'Digital Afterlife: What Happens to Your Data When You Die?' (2013) http://dataedge.ischool.berkeley.edu/2013/pdf/digital-afterlife-white-paper.pdf accessed 15 May 2016.

[124] See Second Life http://secondlife.com/corporate/affiliate/?lang=it-IT accessed 15 May 2016.

[125] For Blizzard profits, see e.g. E Makuch 'Activision Blizzard profits hit $1.1 billion in 2012' (*Gamespot* 2013) http://www.gamespot.com/articles/activision-blizzard-profits-hit-11-billion-in-2012/1100-6403613/ accessed 15 May 2016, or Linden Labs see J Reahard 'Linden Lab's Second Life 'extremely profitable,' company looking to expand' (*Massively by Joystuq* 2012) http://massively.joystiq.com/2012/03/15/linden-labs-second-life-extremely-profitable-company-looking/ accessed 15 May 2016.

[126] Statistics about the MMORPGs market show that in 2013 there were approximately 20 million subscribers, and that the peak in terms of numbers of subscribers was in 2011, close to 23 million. *SeeTotalSubs*, MMOData.net, http://users.telenet.be/mmodata/Charts/TotalSubs.png accessed 15 May 2016.

they need to have their rights in the first layer virtual assets, in order to prevent free riding on their creations.

The free riding arguments (arguments against allowing an individual to obtain benefits from someone else's investment, preventing them to recoup costs) are also somewhat applicable to the second layer too, in the sense that the VWs as a society take advantage and become more attractive for new users with these creations, making developers profit from that.[127] Another likely scenario is free riding of other players, replicating and copying other player's creations (e.g. their original swords, houses, ships, etc.). Free riding, however, as noted by Lemley for IP rights, might even be desirable in the case of VWs, as there is much less need to internalise negative externalities. As with IP, negative externalities are less prominent here in comparison with the tangible property, as consumption by many players is desirable since it enriches the society and culture of VWs.[128] Also, the lack of scarcity in virtual worlds means that free-riding would not result in serious detriment and the developers could make more resources available to players.

Conversely, one of the arguments *contra* the use of this justification for the virtual property is the allocation reason. According to this view, utilitarian theories could be used to oppose the creation of property rights in VWs, since they would decrease the welfare of VWs' owners and other users, by giving property to individuals and creating, effectively, *the tragedy of anticommons*, where individuals would be able to prevent the use of virtual property and result in unwanted underuse of virtual worlds by players.[129] Lastowka and Hunter reply to these arguments saying that they do not consider justifications for allocation, but rather for the creation of property rights in virtual goods. According to them, this does not mean that property should not exist in VWs at all. The argument states that property is not properly allocated, and this can be corrected by the courts, for instance.[130] This response does not address the

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[127] Landes and Posner (n 117); M A Lemley 'Property, Intellectual Property, and Free Riding' (2005) 83 TEX. L. REV. 1031, 1059-1060.

[128] Lemley Ibid 1059-1060.

[129] See M A Heller 'The Tragedy of the Anticommons: Property in the Transition from Marx to Markets Reviewed' (1998) 111(3) Harv. L. Rev. 621.

[130] Lastowka and Hunter (n 1) 59-60.

objection adequately. Rather, the nature of VWs and the layer approach would prevent underuse, as the first layer belongs to the developers and the rights in the second one are derived from this ownership.

3.3.3. Analysis

In summary, second level virtual assets, according to Abramovich's categorisation, are those which mimic chattels. They potentially possess all the essential physical characteristics of a typical 'real world' property object, i.e. rivalrousness, permanence, interconnectedness. However, these features are very peculiar in the case of VWs, because they depend on the developers and their behaviour. The developers chose to code these items in such a way that they possess the relevant features. They can also choose to change the features as they wish and exclude these features.

Another fundamental problem for defining VP as property is the lack of tangibility, which is a prerequisite for property in some jurisdictions (e.g. England, see section 2.3.2.).

Consequently, the doctrinal question, i.e. whether there *is* property in VWs has been answered negatively, as well as the normative question, whether there *ought to be* property (conceived as full ownership) in virtual worlds.

All the principal normative arguments for propertisation (labour theory, utilitarianism and personhood theory) provide some support for recognising virtual property. However, these theories encounter many difficulties, which make them unsuitable for justifying the existence of virtual property, as elaborated in the above sections. The layer structure of virtual worlds, however, allows for more creative solutions based on these theories, and having in mind the importance of VAs, discussed alongside the theories. One of these solutions is virtual worlds user right, explored in the concluding part of this chapter.

3.4. Allocation of ownership in Virtual Worlds

This section aims to assess the allocation of property in VWs, arguing that most developers curtail possibilities for the players to assert any VP rights in second level VAs, even if this concept was justified. Moreover, even where developers envisage some kind of player's property rights in their EULAs (e.g. Second Life), these rights are very limited and can barely be categorised as property. The solution to rectify this imbalance is therefore potentially available in the form of consumer protection. However, due to the distinctive character of VWs and the areas these contracts aim to regulate, consumer protection laws do not prove very helpful.

Allocation of ownership, IP and different other rights in VWs is established through contracts. VW contracts come in the form of clickwrap licences (End User Licence Agreements - EULAs, Terms of Service - ToS, rules of conduct and different other policies).[131] The effects of these contracts are widely disputed, as they leave little or no freedom for the user, and no other choice apart from clicking 'I agree' or to decline, therefore refusing to take part in the game.[132] The most common model at the moment is that the developer claims all property and IP rights associated with the VW.[133]

Blizzard, the World of Warcraft developer, expressly exclude any property rights of users in assets created or traded in the game, in addition to forbidding transfers of accounts (s. 4 and 5 WoW EULA). Second Life and Linden Labs, conversely, used to give relatively extensive rights in content created by the users. Initially, Linden labelled these rights as property, but in response to *Bragg v. Linden Research, Inc.,* [134] changed their terms to granting an IP right only.[135] They also deny property rights in

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[131] See e.g. Blizzard 'World of Warcraft - End User License Agreement' (*World of Warcraft*, 2009) http://www.worldofwarcraft.com/legal/eula.html accessed 15 May 2016.

[132] Erlank (n 1); T Pistorius 'Click-Wrap and Web-Wrap Agreements' (2004) 16 *SA Merc LJ* 568-576; M A Lemley 'Terms of Use' (2006) 91 Minn. L. Rev. at 459, 459-483.

[133] Jankowich conducted a survey of 48 VWs, confirming these assertions, (n 82).

[134] 487 F. Supp. 2d 593, 612 (E.D. Pa. 2007).

[135] Linden Lab. 'Second Life Residents to Own Digital Creations' (*Press Release* 2003) http://creativecommons.org/press-releases/entry/3906 accessed 15 May 2016; 'Second Life

virtual currency (Linden dollars) and property rights in land users can buy in Second Life, reminding the user of the limited licence they are granted.[136] Moringiello argues that Linden deceives its users as it effectively promises something that resembles the bundle of rights in land, i.e. property, and then takes it back by way of terms of service.[137] As Erlank rightly notes, even the recognised rights are rather illusory, as Linden limits them to the game and refuses any liability and compensation in the case of damage or loss of this property.[138] Nevertheless, he also reasonably opines that by insisting on regulating and limiting virtual property, the developer implicitly recognises the existence of virtual property.[139]

On the other hand, Linden grants themselves a non-exclusive licence in players' creations, the scope of which has been widened even more recently, leaving many players of Second Life displeased and embittered, wanting to leave.[140] Also, their EULAs caused Linden Labs to be involved in the most important court cases about VWs and virtual property in the western world.

The first and most famous VWs case is the case of *Bragg v. Linden Research, Inc*.[141] The court confirmed that the terms of service were unconscionable in relation to the

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Terms of Service' (15 December 2010) http://secondlife.com/corporate/tos.php?lang=en-US accessed 15 May 2016, title 7, and especially '7.6 Linden Lab owns Intellectual Property Rights in and to the Service, except all User Content'; and see commentary in Vacca (n 7); A B Steinberg 'For Sale--One Level 5 Barbarian for 94,800 Won: The International Effects of Virtual Property and the Legality of Its Ownership' (2009) 37 Ga. J. Int'l & Comp. L. 381*;* J Gong 'Defining and Addressing Virtual Property in International Treaties' (2011) 17 B.U. J. Sci. & Tech. L. 101.

[136] See sec. 4.8. Second Life ToS available at http://lindenlab.com/tos accessed 15 May 2016.

[137] Moringiello (n 7).

[138] Second Life ToS part 9., or part XVII WoW EU ToS or part 12 US; Erlank (n 1) 102.

[139] Erlank (n 1) 112.

[140] M Korolov 'Outrage grows over new Second Life terms' (*Hypergrid Business*, 30 September 2013) http://www.hypergridbusiness.com/2013/09/outrage-grows-over-new-second-life-terms/ accessed 15 May 2016, or SecondLife® Content Creators Survey on Linden Lab TOS Issue http://toytalks.weebly.com/1/archives/09-2013/1.html accessed 15 May 2016.

[141] 487 F. Supp. 2d 593, 612 (E.D. Pa. 2007).

mandatory arbitration clause and knocked it down (see section 3.1.3. for more details).[142] The court focused on the fact that there was a surprise due to hidden or missing terms because there was no notice of the serious expense and inconvenience to the plaintiff having to spend ten to twenty thousand dollars to pay the arbitrators in addition to having to go to California from Pennsylvania to participate in the arbitration. The court stated that the terms left the plaintiff with no effective remedy.[143]

More recently, in the case of *Evans et al. v. Linden Research, Inc. et al*, once again there was no decision in respect to virtual property (see section 3.1.3.). The case was settled, and even its relevance to the validity of the EULA is limited.

Even the 'liberal' VWs/games seem to be replicating these EULAs. An example of this is Steam, an entertainment platform distributing different games, including VWs. This very successful platform is considered to be user-friendly, open-source to an extent, and an alternative to the traditional business models.[144] Valve, the owner of Steam, created a very restrictive EULA (Subscriber Agreement), resembling very much those of the other VWs. Therefore, apart from IP rights,[145] ownership of the players over their creations and virtual money, contained in their wallets,[146] is limited and non-transferable, with an extended licence taken by the provider, Valve Corporation.[147]

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[142] See note 25 for more detail on unconscionable terms.

[143] S Hetcher 'User-Generated Content and the Future of Copyright: Part Two - Agreements Between Users and Mega-Sites' (2008) 24 Santa Clara Computer & High Tech. L.J. 829, 836.

[144] A Wawro 'Steam now has over 75 million active accounts' (2014 *Gamasutra*) http://www.gamasutra.com/view/news/208667/Steam_now_has_over_75_million_active_accounts.php accessed 15 May 2016; STEAM "Steam & Game Stats" (2014) http://store.steampowered.com/stats/ accessed 15 May 2016.

[145] STEAM 'Subscriber Agreement' sec 6, at http://store.steampowered.com/subscriber_agreement/ accessed 15 May 2016.

[146] Ibid part C.

[147] Ibid s. 6 A.

Valve has been criticised for banning a user who, contrary to the EULA, attempted to sell his Steam account.[148]

Following the above analysis, it could be argued, as many authors do, that the contracts are *prima facie* unfair.[149] The reasonable remedy for this would be challenging their unfair or unconscionable provisions in courts using the consumer protection law.[150]

One could argue that consumer protection law might be helpful to resolve these issues. At the level of the EU, the Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights would apply.[151] This Directive, implemented in the UK in the form of The Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013 (No. 3134) and the Consumer Rights Act 2015, encompasses the contracts regarding digital content, including games (see Recital 19 of the Directive).[152] According to the Act, terms that would be potentially deemed as invalid are e.g. the terms limiting the liability of the developer, reserving the right to terminate or modify terms discretionary and without notice, arbitration clauses, etc.[153]

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[148] A Webster 'Steam user violates subscriber agreement, loses $1,800 in games' (*Ars Technica* 2011) http://arstechnica.com/gaming/2011/03/steam-user-violates-subscriber-agreement-loses-1800-in-games/ accessed 15 May 2016.

[149] Jankowich see (n 8) 50.

[150] Riley (n 8) 907.

[151] OJ L 304, 22/11/2011 0064 – 0088; This Directive replaces, as of 13 June 2014, Directive 97/7/EC on the protection of consumers in respect of distance contracts and Directive 85/577/EEC to protect consumers in respect of contracts negotiated away from business premises.

[152] Part 2 of the Act will completely replace the Unfair Terms in Consumer Contracts Regulations 1999. The Consumer Rights Act 2015 c.5 implements the Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council, OJ L 304/64, 22.11.2011.

[153] Schedule 2 of the Act lists non-exhaustively terms that might be regarded unfair.

Both the UK and EU legislation, however, apply to issues such as information to consumers, rights of withdrawal, liability, delivery and passing of risk, but does not address the issues of property rights, as subject matter cannot be considered unfair and this is out of the scope of this legislation.[154] This law could apply to the parts of the contracts regulating the sale of the licence for using software (the first layer of VWs). The second and third layers are, however, players' creations and would not fall within the definition of goods and services found in the consumer protection laws (as they are not goods or services sold by the developers). Similar, though much more limited protection can be found in California, mandated through Consumers Legal Remedies Act (2006), including the prohibition of inclusion of previously discussed unconscionable provisions in the contract.[155]

So far, VWs contracts have not been challenged much in the US and UK courts. In the UK, there is no such case at the time of writing. The US case law is more developed, and the *Bragg* and *Evans* courts did find certain provisions of the contracts unfair (jurisdiction, accounts suspension). Nevertheless, the courts' deliberations on the property rights have been quite accidental, in the context of discussing the main legal issues of a case. Therefore, we should not rely on the court cases to come in and resolve the issue of virtual property anytime soon. Even if more cases were to appear, the outcome, at least in the US might not be beneficial for the players.[156]

To conclude, VW contracts, at the moment, deny the players virtual property rights in their creations and VW items. However, the courts have occasionally attempted to

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[154] See the Consumer Rights Act 2015 s. 64 ('Exclusion from assessment of fairness (1) A term of a consumer contract may not be assessed for fairness under section 62 to the extent that (a)it specifies the main subject matter of the contract, or (b)the assessment is of the appropriateness of the price payable under the contract by comparison with the goods, digital content or services supplied under it.' See also Rec. 51. Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights; also, the EU does not interfere with property rights of member states, art 345 of the Treaty on the Functioning of the European Union (Consolidated version 2012), OJ C 326, 26.10.2012.

[155] California Civil Code §§ 1750 et seq.

[156] See B J Gilbert 'Getting to Conscionable: Negotiating Virtual Worlds' End User License Agreements without Getting Externally Regulated' (2009) 4 J. Int'l Com. L. & Tech. 238, 242; or generally see S Randall, 'Judicial Attitudes Toward Arbitration and the Resurgence of Unconscionability*'* (2004) 52 Buff. L. Rev. 185; on the unconscionability and Californian law see Quinn (n 8), see also Chein (n 7).

address the balance via doctrines of unfairness in contracts, and this could be a potential solution. In principle, the question of creating and/or recognising proprietary rights and interests in VWs is not an issue that can be regulated by contracts, but one of the general laws of property/IP. In addition, an attempt to apply consumer protection law to VWs EULAs and allocation of property therein is contrary to the views of many authors mentioned in the subsequent section, namely, that VWs are not just games and the players are not just users, but active participants, citizens, residents of the world.

3.5. *Constitutionalisation* of VWs

In addition to the function of contracts in allocation ownership of virtual assets, the contracts have another important function: governance of the VWs. This section aims to demonstrate this significance and how these contracts resemble the real-world constitutions.

Contracts in VWs are an effective and most significant regulatory tool in VWs,[157] usually giving only a 'take it or leave it' option as mentioned in the section above.[158] Using mainly contracts, VW developers have 'omniscient and godlike' powers to control and regulate behaviours and interest of players, turning them into their subjects.[159] Lastowka compares this order to a feudal order, where sovereigns have almost unlimited rights over their vassals, and act as governors of a separate jurisdiction, with a separate economy and governed by a distinct body of law.[160] Jankowich coined a useful term for this regulation 'EULAw' characterising it as 'non-negotiated, infinitely modifiable, proprietor-friendly regulation'.[161] This is not a new

[157] Jankowich (n 8), Mayer-Schoenberger and Crowley (n 6); Lastowka (n 17); Balkin (n 7).

[158] Jankowich (n 8) 57.

[159] Erlank (n 1) 75-76, 79; Jankowich (n 8).

[160] Lastowka (n 17) 195.

[161] Jankowich (n 8) 59.

phenomenon, though, as we have a similar situation for all standard terms contracts. What makes these contracts different is the substance they attempt to regulate in their provision, different issue that is not susceptible to contractual regulations.

The rules of EULAs and ToS govern both legal and environmental aspects of VWs, such as etiquette, game rules, players' conflicts, in-game crimes, privacy policy, business policies, real world law of contracts, property, IP, and dispute resolution.[162] In this way, contracts are also hybrid contract/property documents, granting the players, in some cases, limited property/IP rights in their creations (e.g. Second Life) and exceeding the principle of privity of contracts (their binding nature between the parties only), or in civil law terms, their *in personam* nature.[163] Therefore, the authors share Fairfield's view that these contracts create pseudo-property, pseudo-torts, pseudo-criminal and pseudo-constitutional systems.[164]

Apart from the *ex-ante* rule-making by contract, the providers have a very strong mechanism of enforcement, through code (software, architecture), by restricting access to the world *ex-post*. The providers have abilities to change the worlds in any way they wish, to change its landscape, design functionalities and the player's abilities (what can and cannot be done in a certain world, who can join the world and who needs to be expelled).[165] As noted by Mayer-Schönberger and Crowley, one of the most effective methods of enforcement for the breach of EULAs provision is expulsion, as users incur significant costs when forced to leave the world, both in social (social capital, friends, built reputation, ties with player's avatar) and financial terms (monthly subscription fees and loss of all virtual property).[166] They therefore rightly label VWs as 'the most Lessigian of all spaces of online interaction.'[167] Erlank

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[162] Ibid 10.

[163] Fairfield (n 9) 429,451.

[164] Ibid 429.

[165] Balkin (n 7) 2049.

[166v]Mayer-Schoenberger and Crowley (n 6) 1791-1792.

[167] Referring to Lessig's modalities of regulation of cyberspace and the prominence of code (Internet architecture) L Lessig*, Code, version 2.0* (Basic Books, 2006).

agrees, going even further in claiming that 'there is no room for manoeuvre when a player gets to deal with the program code'.[168] No matter how powerful code is in restricting players' behaviour, it has not been used pervasively to regulate all the possible relations within VWs. Rather, for some of the controversial issues, a preferred regulatory modality has been contracts.

Contracts accompanied by code, therefore, are the main governing modalities of VWs. Effectively, through contracts, developers often regulate issues that in the real world could not be thus regulated; creating different quasi-legal regimes. Mayer-Schönberger and Crowley characterise this phenomenon as *constitutionalisation* of VWs.[169] Similarly, Suzor notes the constitutional tensions in the regulation of VWs. He argues for reconceptualisation and evaluation of this framework, and application of the rule of law principles to this private regulation by EULAs.[170]

Constitutionalisation could be seen as a consequence of VWs being 'places' with their own social interactions and culture, mimicking the real-world.[171] Many economists, anthropologists, psychologists, computer scientists and lawyers have studied the social significance and features of VWs. They embarked on the task of explaining different social phenomena within VWs, such as VW cultures, communities, social

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[168v]Erlank (n 1) 65; Grimmelmann (n 5) 174*;* Deenihan (n 7) 5.

[169] According to them, this process started when in 2003 Linden decided to recognise players' IP rights in Second Life, resulting in these rights being subjected to real-world legislation, at least in the IP rights domain. See Mayer-Schoenberger and Crowley (n 6)1809-1810; Linden Lab see note 149 above.

[170] N Suzor 'The role of the rule of law in virtual communities' (2010) 25 Berkeley Tech. L.J. 1817, 1817-1886.

[171] Lastowka (n 17) 10, 46.

cohesion,[172] language,[173] politics, education, military,[174] medical and many others. The Individual and economic importance of VWs has been discussed in section 3.3.2.

Lastowka, for instance, maintains that the most compelling element of VWs is the social interaction happening there, i.e. user interaction and culture.[175] As he demonstrates, even the social use of our bodies has been mapped and projected to the social use of avatars. For instance, during the encounter of two avatars, they usually maintain the spatial difference between their bodies, just like humans would in real life.[176] Second Life is perhaps one of the most obvious examples for the social connotations of VWs. This world is created in a way that simulates the real world and the laws of physics, and movement are similar to the real world: flags move in the wind; objects fall to the floor if a character drops them. An interesting example in the field of culture are films created in the VWs and shared elsewhere later (e.g. on YouTube), called *machinimas*.[177] Furthermore, many prominent education institutions, such as the University of Harvard or Yale, have their Second Life profiles. VWs are being used for medical purposes too, e.g. therapists use them to treat patients with Asperger's Syndrome.[178] The worlds can be a site of rich political

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[172] For instance, a recent empirical longitudinal study tested social ties within the MMOPG Everquest II, see C Shen, P Monge and D Williams, 'The Evolving Virtual Relationships: A Longitudinal Analysis of Player Social Networks in a Large MMOG' (2011) http://dx.doi.org/10.2139/ssrn.1929908 accessed 15 May 2016.

[173] Tactical Language Project, developed at the University of Southern California Center for Research in Technology for Education, teaches language using virtual environments in order to teach students language within a cultural context. Fairfield (n 7) 1061.

[174] See M Wertheim 'Virtual Camp Trains Soldiers in Arabic, and (*N.Y. Times* 6 July 2004) http://www.nytimes.com/2004/07/06/science/virtual-camp-trains-soldiers-in-arabic-and-more.html?pagewanted=all&src=pm accessed 15 May 2016.

[175] Lastowka (n 17) 10, pointing at vast literature written on social and cultural phenomena in VWs, by journalists, anthropologists, sociologists, and others.

[176] Ibid 46.

[177] Ibid 190.

[178] See Fairfield (n 7) 1059.

debates and campaigns, e.g. Second Life internal elections[179] or 2008 Hilary Clinton's Second Life campaign.[180] VWs can even be locations of virtual embassies.[181]

All these individual, social and economic characteristics of VWs encourage writers to claim that the worlds have 'significance above and beyond their importance in the game context.'[182] Therefore, as commentators observe, 'VWs are online places where games are usually played'.[183] VWs are qualitatively different from other kinds of games and real world social interaction. The reason for this is in the unique interplay of features of VWs, and because these interactions happen in an environmentally peculiar 3D world, which mimics the physical world,

The physicality or *environmentality* of VWs is devised in order to mimic the real world quite realistically or to create imaginary, graphic, 3D environments that enhance the users' experience and immersion.[184] Consequently, there is a much richer potential for creation in the building of VWs, in comparison with, for instance, social networks. The option and tools for creation are much more limited on social networks, stemming from their web-based interface, and lack of physicality. The ability to create using different tools and to share these creations with the fellow player is one of the biggest motives for a player to participate in a certain VW. A recent report found that 70% of the players surveyed had created new content related to video games and 66% of those had created new objects in a game, spending on average, about 5 hours per

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[179] *See* J Wagner 'Au to New World *The Election Comes to Second Life!'* (2004 *Second Life Blog*) http://secondlife.blogs.com/nwn/2004/04/theelectionco.html accessed 15 May 2016.

[180] See D Holloway 'Hillary Clinton flirts with Second Life' (Crikey 11 July 2007) http://www.crikey.com.au/2007/07/11/hillary-clinton-flirts-with-second-life/ accessed 15 May 2016; or M Reverte, 'QG Second Life d' Hillary Clinton' (*YouTube*, 05 June 2008) http://www.youtube.com/watch?v=_iCyRL1Bp-Y accessed 15 May 2016.

[181] See Reuters 'Sweden first to open embassy in Second Life' (2007) http://www.reuters.com/article/2007/05/30/us-sweden-secondlife-idUSL3034889320070530 accessed 15 May 2016; there are 10 embassies in total, see http://www.redcentricplc.com/virtual-worlds/ accessed 15 May 2016.

[182] Chein (n 7) 1069.

[183] Lastowka (n 17) 119; Bartle (n 82).

[184] Erlank (n 1) 51-52.

week creating this content.[185] This content varies from new avatars (49%), gameplay or machinima videos (i.e. films created in the VWs, 29%), music or sound effects (29%) to entirely new games. The option and tools for creation are much more limited on social networks, stemming from their web-based interface, the lack of physicality.[186] For social networks, the reasons for joining are much different. The users seem to be motivated by two essential social needs: the need to belong, and the need for self-presentation.[187] Therefore, any comparison in the size of user base or implications that the user might have migrated to social networks, encounter the issues of imperfect analogy, as the experience and reasons for joining these different platforms are, at the moment, very different.[188]

To conclude, the present form of regulation, by contracts and code, is inadequate for protecting the interests of users especially their interest in autonomy (see section 2.7). Relationships between players and providers often have arbitrary and ad hoc outcomes.[189] While this balance of power may promote commercial certainty and predictability for developers and the significant lowering of costs for users, the status quo is still unsatisfactory. The author shares the academic views discussed above arguing that quasi-constitutional relationships are unfair and unsuitable and that there is a need for more accountability and certainty for users. Recognising the features of

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[185] See G Lastowka "The Player-Authors Project" (November 30, 2013) available at SSRN: http://ssrn.com/abstract=2361758 or http://dx.doi.org/10.2139/ssrn.2361758 accessed 15 May 2016.

[186] Ibid 127.

[187] A Nadkarni and S G Hofmann "Why do people use Facebook?" (2012) 52 Personality and Individual Differences 243.

[188] This might change in the future, as Facebook aims to introduce environmentality and 3D physicality. This way, Facebook aims to mimic VWs, recognising the advantages and desirability of these worlds. See Zuckerberg announcing Facebook's acquisition of Oculus VR, the leader in virtual reality technology, M Zuckerberg Facebook post, (*Facebook*, 25 March at 22:30) https://www.facebook.com/zuck/posts/10101319050523971 accessed 15 May 2016.

[189] Jankowich (n 8); Lastowka (n 17); Erlank (n 1); Fairfield (n 7); Castronova (n 5); Their approach has been followed by this author in E Harbinja "Virtual worlds players – consumers or citizens?" (2014) 3(4) *Internet Policy Review* available at: http://policyreview.info/articles/analysis/virtual-worlds-players-consumers-or-citizens accessed 15 May 2016.

VWs, their distinct character and place like qualities, it is necessary to provide for a better legal and regulatory regime to protect their citizens.[190]

Such a system would recognise service providers' interest and property/IP in the system and the software, but it would also take account of the user's autonomy and choice over what happens to their VA on death. The solution suggested in the below section is based on concepts drawn from the private law, not public law, but it does consider the features of VWs (immersion, place-like features) and recognises the *constitutional* nature of VWs.

3.6. Alternatives: Property rights in the property of another

The analysis has so far been normative and theoretical with reference to the law. In the subsequent sections, however, the analysis will become more doctrinal with the aim to reflect legally on the specific nature of VWs. It is argued here that full ownership of virtual property, for the reasons identified when discussing virtual property justifications and features incidents, is not an adequate solution as it would be prejudicial to the interests of either the players or the developer of the VW. We, therefore, need more nuanced solutions that would serve as a compromise between these interests.

Some proposals have already experimented with property interests other than full ownership. These come in the form of limited real rights, derived from and subordinate to another person's full ownership. In civil law systems, these rights are known as servitudes: real (falling on immovable property), or personal (attached to a person, allowing him to enjoy a property of another).[191] In common law, these time-limited rights are usually only attached to immovables (real property) and are represented by

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[190] Lastowka (n 17); Castronova (n 5).

[191] Bell (n 48) 289-290; E. Steiner *French law: a comparative approach* (Oxford University Press 2010) 389-390.

notions such as easements, lease or life estate.[192] It is argued that such rights can serve usefully as models to take into account the fact that the interests and rights of the players are based on someone else's property (referred to above as the 'first layer', the developer's code and servers). Since VWs operate globally, these proposals need to experiment with both civil and common law concepts, trying to identify commonalities and to strike the best balance for the VWs players. It is not claimed here, however, that these common and civil law concepts should or can be merged and borrowed in either of the real-world jurisdictions, notwithstanding the arguments for legal transplants and borrowing in general (see section 2.3.1.). The proposal is a reform proposal, limited to VWs as the separate, peculiar places we consider them to be and as explained above.

3.6.1. Suggested models: Virtual easement

An interesting proposal comes from Slaughter who, analysing benefits and drawbacks of introducing a property or contractual regime for VWs, introduces the concept of 'virtual easement.' According to him, this servitude would feature transferability (from one user to another, in life and on death); longevity (for as long as the user invests time and/or money and the VW exists), liability (no property remedies), *in rem* nature (except for the liability rule which is in personam); *numerus clausus* (finite number of iterations).[193] This theory appears as rather original and a good compromise between the rights of users and service providers. However, the flexibility it offers could be perceived as a possible source of uncertainty for the players, since different service providers could choose different terms also to their detriment, which is usually not the

[192] M Dixon, *Modern land law*, (7th ed. Routledge 2010) 267-268, 313.

[193] Slaughter (n 7).

case with servitudes in the real world, especially in civil law systems, where certainty of property rights is considered as an ultimate aim (see section 2.3.).[194]

Similarly, the system of easements (common law counterpart of the civil law servitudes) has been argued for by Lastowka in his later work.[195] He sees it as the best solution since both the players and virtual world owners are interested in something that depends on essentially one tangible thing, servers, owned by the providers. Therefore, in order to enable rights on the top of this ownership interest, it is necessary to introduce lesser rights for the benefit of VW inhabitants.[196] He does not suggest what features this model could have. A similar solution was offered by Fairfield, in his later work.[197] Under the model he proposes, the licence agreement would also recognise covenant-style interests or servitude of the users.[198] The problem with easements, covenants and leaseholds would be that, by definition, these interests are related to land, immovable property.[199] In that case, we would have to use a somewhat weak analogy between land and the developers' server systems.

3.6.2. Suggested models: Intangible usufruct

Veloso introduces the concept of 'intangible usufruct'. He asserts that this is a good solution for a practical reason that avoids one-sided arguments and aims to provide

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[194] This principle permeates legal writings referring to civilian systems, and their mandatory rules for property and rigidity, as van Erp notes: 'As a result, property law became a rather petrified legal area, rooted in a desire for legal certainty.' S Van Erp 'Comparative Property Law' in R Zimmermann and M Reimann, eds, *The Oxford handbook of comparative law* (Oxford University Press, 2006) at 1044,

[195] Lastowka (n 17) 127.

[196] Ibid.

[197] Fairfield (n 8).

[198] Ibid 451-457.

[199] See e.g. C Van Der Merwe and A L Verbeke, eds, *Time Limited Interests in Land* (Cambridge University Press 2012); or Restatement Third, Property (Servitudes) § 4.6. Restatement Third, Property (Servitudes) § 1.1 Restatement Third, Property (Servitudes) § 1.2.

a way out of the unfair contracts, still respecting the developer's interests.[200] He proposes three rules to govern the relations established by usufruct: first that the developer should be considered the owner, by virtue of contract, should provide for the right to use and the right to the fruits for the user; these rights are alienable, and when bundled together, should form a virtual property right;[201] second, the developer may undertake any works and improvements or diminution on virtual property and/or VW, but provided that such acts are not exercised arbitrarily, should they cause a diminution in the value of the usufruct or prejudice the right of the user[202] and third, if the VW is terminated, the players are considered to have returned virtual property to the developer thereby absolving him from any complaint that might arise. This approach appears reasonable, and the solution in this chapter will build upon this proposal, developing it in more detail, especially in relation to the transmissibility and considering the different conceptions of servitudes (usufruct) between legal systems.

3.6.3. Proposal: VWs user right

Considering the above foundational work and the problems discussed in sections 3.3, 3.4. and 3.5., this thesis proposes as a part of its novel contribution a reform proposal designed to balance the interests of the creators of VWs and the players or users in these worlds. This model is inspired by, though not conceptually aligned with (for reasons discussed in detail below), civilian usufruct and common law life estate. In her prior work, the author suggested a model entitled 'Virtual Worlds Usufruct', which was a right that implied monetisation after death and therefore could not be reconciled with the classical concept of usufruct.[203] After careful consideration, the author decided to introduce a more nuanced solution into the thesis. The new concept, 'VWs user right', will be elaborated in this section.

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[200] Veloso (n 7).

[201] Ibid 73.

[202] Ibid 74.

[203] E Harbinja 'Virtual Worlds – a Legal Post-Mortem Account' (2014) 11(3) SCRIPT-ed, 273-307.

As noted above, Veloso, Slaughter (section 3.6.2), Lastowka (section 3.6.1) and the author in her earlier work, suggest solutions in this domain modelled on civilian usufruct, and common law easement. Therefore, it is important to review the implications of the models based on usufruct, before introducing the new reform proposal.

3.6.3.1. Usufruct

Usufruct as a civil law concept originates from Roman law and it essentially entitles a person to the rights of use and fruits of another person's property. Under Roman law, the usufructuary had the right to use and enjoy the property and its fruits, while preserving the substance of the property (i.e. the elements of *usus*-use, and *fructus* – fruits of one's property, but lacking *abusus* – alienation and transmission).[204] The common law concept of life estate has similar effects in relation to rights conferred to life-tenant, in particular with regard to the enjoyment of fruits.[205] In Scots law, a mixed system a similar role is played by liferent. Usufruct does not have to pertain to immovables; it can be created over both movable and immovable property.[206] The owner retained nude ownership, that is, ownership burdened with a real right of enjoyment and use. Both the French and Belgian Civil Codes (hereinafter: FCC and BCC) employ a similar description, namely *usufruit* and *vruchtgebruik* respectively (FCC/BCC, art. 578).[207] In German law, the property may be similarly burdened with a *Niessbrauch* (BGB, § 1030).

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[204] Gaius, 2.30; D.7.1.1; D.6.1.33; D.7.1.72; D.7.4.2; D.23.37.8.3.S in P Scott, ed, *Civil Law, Including The Twelve Tables, The Institutes of Gaius, The Rules of Ulpian, The Opinions of Paulus, The Enactments of Justinian, and The Constitutions of Leo* (Central Trus Company, 1932), 286, available at http://www.constitution.org/sps/sps.htm accessed on 15 May 2016.

[205] McClean p 658

[206] J McClean 'The Common Law Life Estate and the Civil Law Usufruct: A Comparative Study' (1963) 12(2) Int'l & Comp. L.Q. 649.

[207] The description in Old Dutch Civil Code, art. 803 (in force until 1992) was derived from

Civil Code, art. 578 (Mijnssen, Van Velten and Bartels, Asser, Eigendom, 261). in A L Verbeke, B Verdick and D J Maasland 'The many faces of usufruct' in C Van Der Merwe and A L Verbeke, eds, *Time Limited Interests in Land* (Cambridge Univeristy press, 2013) 33-57, 37.

Usufruct is a real right, that is, a right on the property itself and not merely a right against a person (the owner).[208] A key feature of usufruct is however that it terminates on the death of the usufructuary (if not earlier).[209] This obvious temporal limitation does not prevent the right of usufruct from being alienated, but only limits the time frame of the transferred usufruct to the life of the original usufructuary (FCC, art. 617). In principle, usufruct expires upon the death of the person on whose life the right was based, irrespective of any contracted term.[210] It is not possible to constitute a usufruct which is permanent or unlimited in time.[211] However, historically and nowadays, any fruits which have already been gathered by the usufructuary before death would pass to his heirs.[212] McClean finds that the common law concept of life estate and Scots law liferent have the very similar effect to usufruct, and confer almost same rights.[213]

There are some problems with applying a solution based on the usufruct concept to VWs. Importantly, as noted above, usufruct in principle ends on the death of the usufructuary. Hence, nothing would persist to be transmitted to heirs on that person's death. Although some recent legal reforms in civil law countries such as the Netherlands demonstrate that there can be modifications to the usual rules of usufruct

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[208] Zenati-Castaing and Revet, *Les Biens*, 494 and de Page, *Traite´ e´le´mentaire*, 153, cited in Verbeke and Maasland ibid 36.

[209] Cass. 3 July 1879; Pas. 1879 I 342; Borkowski and Du Plessis, *Roman Law*, 172; Baudry-Lacantinerie, *Pre´cis de droit civil*, 770; de Page, *Traite´ e´le´mentaire*, 258; Prutting, *Sachenrecht*, 364; Verbeke, 'Quasi-vruchtgebruik', 37, all cited in Verbeke and Maasland ibid 36.

[210]Verbeke and Maasland ibid 36, n 27.

[211] Ibid 37, n 15. The temporal aspect also applies to the common law life interest, see McClean (n 203) 655 or Lawson and Rudden (n 53) 97.

[212] A Watson, *The Digest of Justinian, Volume 1* (University of Pennsylvania Press, 1998), 242-243; W A Hunter, *A Systematic and Historical Exposition of Roman Law in the Order of a Code*, (Sweet & Maxwell, 1803), 388-389; French Civil Code arts. 582-599.

[213] McClean

in the interests of policy,[214] no such reforms have affected the fundamental idea that the usufruct interest terminates on the death of the usufructuary.

A second problem relates to applying a solution based on usufruct to common law or other legal systems. Similar concepts (easements, leasehold or life estate in England) only apply to immovable property (or 'real property' in English law) and have very different legal nature and effects (regarding duration, use, transfer, etc.). It is not clear whether life estate in common law (the concept resembling usufruct most) applies to movables, or it only relates to land and immovable property,[215] As noted above, McClean argues that there is no actual difference in substance between usufruct and life estate and that in a mixed legal system, such as Scottish liferent, right to use another's property (the fee) for life can extend to movables.[216] Notwithstanding these differences between legal systems, the global uptake of VWs by players from many different jurisdictions, a solution based purely or mostly on one of these usufructuary or similar institutions may not scope well to VWs.

Therefore, while usufruct has been an interesting inspiration, it cannot be the foundation of a successful, multi-jurisdiction solution for providing rights to players to bequeath the value of their second layer VAs to their heirs. The author justified the need for such a solution earlier in this chapter, discussing constitutionalisation (section 3.5.), the pervasive and immersive nature of the VWs environment (section 3.1.2), as well as time and labour players employ in VWs (section 3.3.2.1.).

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[214] Dutch law, for instance, introduced a significant innovation, allowing the usufructuary to use and consume the usufructuary assets without being obliged to restore either the assets or its equivalent upon extinction of the usufruct. This is contrary to the cases of the conventional quasi-usufruct in the French and Belgian law, where the usufructuary is obliged to restore an equivalent. The Dutch Civil Code in article 3:212, § 1 stipulates that if usufructuary assets are destined to be alienated, the usufructuary is entitled to alienate the assets in accordance with their intended purpose., Van Der Merwe and Verbeke (n 205) 51-52.

[215] Van Der Merwe and Verbeke (n 205).

[216] G L Gretton and A J M Steven *Property, trusts and succession*, (2nd ed. Bloomsbury Professional, 2013) 323, W J Dobie *Manual of the law of liferent and fee in Scotland*, (1892, W. Green & Son 1941) 1-2.

3.6.3.2. VWs user right

The new model suggested in this thesis is "VWs user right", an entirely new right, which could be introduced by domestic statutes or model law as in the US (see section 6.2. for more details). VWs user right is a personal right of a player against VW provider in second layer assets. The player has the right to use and transfer their second layer asset while playing the game. In addition, the player has a right to compensation in the form of monetary value for assets they have earned, acquired or purchased in the game, and which belongs solely to their account and applies to their second layer assets.

3.6.3.2.1. Transmission on death

With limitations explained in this section, the VWs user right transmits to heirs on death, which makes it different from VWs usufruct suggested in the author's earlier work. Currently, users who 'own' or create virtual assets only acquire contractual rights against the VWs owners through ToS. Such personal contracts will be discharged on death unless there is an opposite provision in the contract. [217] As contracts rather routinely expressly exclude survivability, transmission of virtual assets on death is under the current VWs ToS impossible.

The right to transmit the VWs user right will only apply to the monetised value of assets which can be transferred. This differs from the only detailed post-mortem

[217] Principle 'Actio personalis moritur cum persona' in *Beker v Bolton* (1808) 1 Camp. 439; 170 ER 1033, revised by *The Law Reform (Miscellaneous Provisions) Act 1934* c. 41 (as amended), revised the rule mandating that all personal rights will survive against and for the benefit of the estate, with the only exception of defamation and claim for bereavement; for a commentary about the contracts and succession see A R Mellows, *The law of succession* (4th ed, Butterworths, 1983) 295 – 296; B Nicholas, *The French law of contract* (2nd ed. Clarendon Press; Oxford University Press 1992) 29-30; M L Levillard 'France' in D J Hayton, ed, *European succession laws* (2nd ed. Jordans 2002) 219; for Germany see K Kuhne et al. 'Germany' in Nicholas *ibid* 244-257.

related proposal in VWs scholarship, introduced by Troung.[218] She proposes that the courts honour the wishes of players to bequeath the value of their virtual assets and, if the players fail to do so, and the VW contract has a non-survivorship policy, then it will operate to bar claims by heirs.[219] Troung suggests that the players should be able to transfer the non-monetary value of their virtual property to their immediate family members,[220] but they would only be able to transfer the whole account, and not an individual item or monetary value, due to the conflicting interests of the VW providers. This solution is quite contradictory, as it argues for transfer of virtual assets alone, not their monetary value, so as to abide by the contract and avoid conflict with the VW owner, but at the same time, it violates universal contractual provisions of non-transferability of the entire account.

By contrast, the VWs user right is designed to minimise disruption to the VW ecology and conflict with the wishes of the VW owner, while recognising as discussed earlier, the earned right of the VW player to transmit assets they have worked for in-game (see further below), First, the right will only be transmissible as a monetary claim if VA exchanges are legal on recognised auction sites. If no such auction sites exist or ToS do not permit them, then monetisation is not possible, and neither is the right to compensation. Thus, the VW owner is not faced with an unwarranted financial burden as he will be compensated at a market rate for the virtual assets the owner created and thus not have to reach into his own pockets. The VW owner will have received during life either subscription or revenue via other means (e.g. adverts), so to allow the VW to retain monetisable VAs after a player's death as well could be seen as an unfair windfall.

Secondly, unlike Troung's proposal, the VW user's right respects typical VW contractual provisions forbidding transfers of accounts, as family members do not get the access to the deceased's account and cannot play the game instead of the deceased player. This minimises disruption to the game and its rules and loss of new revenues from new players. In order to further minimise this disruption, the monetary

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[218] O Y Truong 'Virtual Inheritance: Assigning More Virtual Property Rights' (2009) 21(3) Syracuse Sci. & Tech. L. Rep. 57, 57-86.

[219] Ibid 80.

[220] Ibid.

compensation described above would ideally need to be claimed within a certain time, e.g. six months. Possibly the right might also only be claimed by family members, as Troung suggested as well, to minimise disruption and burden to the VW further, although there seems no prevailing reason to make an exception to normal rules of freedom of testation (as defined in each legal system) for VAs. All the other assets would return to the VW, and to the players who are immersed in the VW and interested to make further use of these assets.

This solution is a law reform proposal, and it would need to be enacted by relevant legislation in the individual jurisdictions, notwithstanding practical difficulties of such a reform (e.g. in the US, provisions from the Draft Fiduciary Access to Digital Assets Act to be enacted by the state laws; relevant legislation in the UK and other European countries, see section 6.2.3.). Consequently, it might entail changes in EULAs.[221]

3.6.3.2.2. Advantages of VWs user right

The first advantage of the VWs user right is that this model provides an acceptable compromise between the rights of the VWs owner and the player. Practically, this is done in two ways: 1. recognising the respective contribution both of the capital to build the VW provided by the VW owner, as well as the money providers spend on maintenance and promotion of the world; and the labour as well as subscription and other monies provided by the players (e.g. money provided to purchase in-game assets, see section 3.1.2. for some examples of this); 2. recognising the particular stake players have in ownership in VAs, even on death, which was explained above in section 3.5. as relating to the constitutionalisation of VWs and the immersive environment in which players operate in-game.

The second significant advantage of this model is that it does not allow heirs of players to interfere with the operation of the VW after player's death unless they pay to re-enter the game as new players with new accounts.

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[221] It is worth noting, however, that it would be a matter for national legal systems to decide if the VW user's right could be excluded by contract. If this were allowed, it is likely the right would have little effect.

Third, the model does not interfere with common provisions of VW contracts or EULAs forbidding the transfer of assets, accounts or passwords, except within recognised auction sites.

Fourth, this model does not provide for a general financial claim against the VW (either during the life of player or on death), which could be unduly burdensome if the VAs of the deceased could not be monetised.

3.6.3.2.2. Disadvantages of VW user right

First, the right suggested in principle operates only post mortem. It does not require VWs to offer monetisation when a player leaves during life. To do so might be seen as risky as potentially financially burdensome to existing VWs, and thus discourage growth and capital investment in future VWs. A compromise solution might be to apply the right during lifetime to cases where the game is unjustifiably closed or destructively modified. This would not extend to justified improvements and developments of the VW, nor to bankruptcy or similar where the VW owner had no choice but to close and assets are in any case likely to be seized by preferred creditors.

Secondly, the right might produce very little, and rather arbitrary benefit, for players, since a considerable number of asset auction sites are illegal as unauthorised by the EULAs of the VWs. An issue then arises whether VWs could be compelled by law to set up an authorised VA auction site, and thus create an additional burden on the providers. If the solution applies to the current state of play, the compromise would be reasonable from the VW owner's point of view, as they could effectively exclude it by not having an authorised auction site (and indeed at present, there are few). Where there are recognised auction sites, service providers are already aware of this and approve of such a practice so can reasonably be expected to endorse the VW user's right. By corollary, players would have a reasonable expectation to realise and transfer the monetary value of their second layer VAs where authorised auction sites exist, so that value is clearly something they would expect to transmit to their heirs as well.

Third, an effective enforcement of the right may be difficult particularly when heirs and/or personal representatives are unaware of the VW in question or the game's

environment in general. However, these difficulties have been overcome in relation to emails (see section 4.5.), and as generally envisaged by the US Uniform Law Commission in the Uniform Fiduciary Access to Digital Assets Act (UFADAA).[222] These implementation issues will be considered in future work.

Finally, as noted above, an issue could be potential contractual waivers, if (as is likely) EULAs of VWs attempt to exclude the new VWs user right. Again, and as suggested in the UFADAA, this can be overcome by prohibiting such provisions (see section 6.2.). While some practical aspects may need to be fine-tuned, the idea is presented here as one of principle to produce a fairer balance of outcomes between players and VW developers.

It is worth noting, in the end, that the solution differs from those suggests in other case studies, in that there the author does not suggest any default transmission of assets in the email and social network examples. As explained in the introductory part of this chapter, the main reason for this is that privacy is not as essential here, since VAs do not typically embody or carry personally identifiable data. VW players typically disguise their identity under chosen pseudonyms or even assigned names, and so assets they acquire e.g. gold, virtual 'magic swords' do not reveal personal data. The monetised value of the assets, which will actually transfer, reveals still less about the deceased. Therefore, the interest in PMP asserted in this thesis, does not prevent the suggested default, but limited, transmission of second layer assets.

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[222] 'Unless otherwise provided by the court or the will of a decedent, a personal representative of the decedent may access:

(1) the content of an electronic communication sent or received by the decedent only if the electronic-communication service or remote-computing service is permitted to disclose the content under the Electronic Communications Privacy Act, 18 U.S.C. Section 2702(b) [as amended];

(2) the catalogue of electronic communications sent or received by the decedent; and

(3) any other digital asset in which the decedent at death had a right or interest.' National Conference of Commissioners on Uniform State Laws*, Draft Fiduciary Access to Digital Assets Act*, s. 3, (July 2014) Drafting Committee Meeting, http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014am_ufadaa_draft.pdf accessed 15 May 2016.

3.7. Conclusions

First, this chapter assessed the nature, features and importance of VWs, the rights of their players to 'own' and, more specifically, transmit interests in VWs accounts on death. In this analysis, we used Abramovich's layer model, as more nuanced and suitable for VWs. The chapter focused on the second layer assets (VAs mimicking chattels), as the most peculiar, representative and disputed example.

Second, it asked if virtual property in second layer assets exists in the legal doctrine and if it is justified by the theoretical frameworks we have established for propertisation (see section 2.6.). Both questions have a negative answer, and the concept of virtual property is rejected.

Third, the chapter also discussed the current state of allocation of property in VWs through contracts (ToS). It is argued that the allocation of property and VWs themselves are regulated by quasi-constitutions, which deny any property rights to their players (i.e. second layer), occasionally recognising IP rights (i.e. third layer). These quasi-constitutions govern VWs and different relationships therein, beyond what is traditionally regulated by contracts. An effect of this is the phenomenon of *constitutionalisation* of VWs. This phenomenon is also seen as a consequence of *environmentality,* meaning that VWs mimic the real world, being places on their own and not just games. The chapter has identified various personal, economic and social aspects of these places, which add even more strength to this argument.

Fourth, recognising the conflicting interests of the developers and players, in line with the doctrinal and normative analyses of virtual property and the phenomenon of *constitutionalisation*, the chapter proposes a novel compromise solution in the form of VWs user right. This right is conceived as a right on the second level virtual assets.

Fifth, the VWs user right transmits to heirs on death, which makes it different from VWs usufruct suggested in the author's earlier work. The right will only be transmissible as a monetary claim if VA exchanges are legal on recognised auction sites. If no such auction sites exist or ToS do not permit them, then monetisation is not possible, and neither is the right to compensation and transmission.

Finally, it is worth noting that the solution here is in the form of a principle, without going into the technical details of succession law, economics, bankruptcy law, etc. Rather, the aim of this chapter is to provide some guidance, based on the analysis of the previous literature on virtual property, taking into account the EULAs provisions and special features of VWs. Chapter 6 will suggest some more general, tentative solutions, applicable to all the case studies, as well as some more specific ones.

Chapter 4 – Emails

4.1. Conceptualisation and brief history of emails

'Electronic mail' (email) is an electronic system for the exchange of messages over the Internet. The common usage of the term email refers to individual electronic messages, and usually only to the textual content of the messages and their attachments.[1] This chapter will adopt the terminology and refer to email messages (hereinafter: email) in terms of their content. Email accounts (hereinafter: accounts) enable access to emails and an analogy usually used here is one of the letters. Along this line, accounts are some form of 'physical' representation of emails, enabling and regulating access to the content, just as papers are a physical representation of letters and their content, defining access to this content. This analogy has been used for the purpose of providing an illustration and will be evaluated in more detail later in this chapter.

The history of emails started in 1965 when Van Vleck of MIT invented 'the first popular computer-based electronic mail service as a posting/delivery construct with addressing'.[2] In the subsequent 20 years, many other components of the system (e.g. transfer protocol, content or user feature) have been developed so that we can have the system as it is nowadays. The technical features of the system are as follows: flexible form (plain text, right format, attachments, pictures, videos); asynchronous character (people send and receive messages on their own time); broadcast (ability

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[1] See D Hansen et.al. *Analyzing Social Media Networks with NodeXL: Insights from a Connected World* (Morgan Kaufmann, 2010) 106; or J Shen et.al. 'A comparison study of user behavior on Facebook and (2013) 29 COMPUT HUM BEHAV 2650, 2650–2655.

[2] See EmailHistory.org 'Email Milestones Timeline' (*dcrocker*, ed. 6 Sep 2012) http://emailhistory.org/Email-Timeline.html accessed 10 December 2015; or T V Vleck 'The History of Electronic Mail' (1 Feb 2010) http://www.multicians.org/thvv/mail-history.html accessed 15 May 2016.

to send messages to many people simultaneously), push technology (the sender decides on the content and timing of a message), threaded conversation.[3]

Email still represents the core of all online communications, along with social networking.[4] Usage of emails is quite evenly spread across different age groups, making it the most used activity online in the UK and US, in contrast with social networking, which is still an activity used more by the younger groups of users.[5] Communication nowadays is almost impossible to imagine without this quick, relatively reliable and convenient system used for various purposes, such as communication, task and contacts management, sharing of documents, pictures, videos and other content as attachments, both for personal and business purposes.[6] One could argue that the use of social media will gradually supplement the use of emails in online communications. However, research finds that similarly to emails complementing the use of telephone and face-to-face communication, the use of

[3] Hansen (n1) 106-107.

[4] For US see Z Fox, '10 Online Activities That Dominate Americans' Days' (*Mashable*, 15 Aug 2013) http://mashable.com/2013/08/15/popular-online-activities/ accessed 15 May 2016; and for UK: Office for National Statistics, 'Internet Access - Households and Individuals, 2013' (8 August 2013) http://www.ons.gov.uk/ons/dcp171778_322713.pdf accessed 10 December 2015, email is still the most popular activity online in general; K Purcell 'Search and email still top the list of most popular online activities' (*Pew Research Internet project*, 9 Aug 2011) http://www.pewinternet.org/2011/08/09/search-and-email-still-top-the-list-of-most-popular-online-activities/ accessed 15 May 2016.

[5] Ibid and Hansen (n1) 106; see also W H Dutton and G Blank, D with Groselj, 'Cultures of the Internet: The Internet in Britain' Oxford Internet Survey 2013 (Oxford Internet Institute, University of Oxford) 37, 41.

[6] For more see Hansen (n1) 105-125.

social networks has complemented the use of emails so far,[7] without resulting in a major decrease in their use.[8]

As the focus of this thesis is not on the business users and corporate email systems and accounts, it is worth briefly looking at the value of emails for individual users, one that is usually beyond monetary worth.[9] The economic value is, understandably, very relative and difficult to ascertain.[10] For example, an external value of emails may be indicated by the value hackers assign to it, dependent on the content of an individual account.[11] In terms of content, emails can act as repositories for contacts, tasks or to-do items, users documents (as attachments and/or draft messages), pictures, even books, social messages, jokes and other writings. In addition, emails contain account information for other services, such as domain names, e-commerce providers, etc. (usernames and passwords) and serve as a proof of identity for these services. Finally, an email account can represent a letterbox, containing an enormous number of private letters and messages.[12] Research finds that the content of messages within

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[7] See Shen (n1) 2653 and R Kraut et. al. 'Internet paradox revisited' (2002) 58(1) J. Soc. Issues. 49; B Wellman et.al. 'Does the internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment' (2001) 45(3) Am Behav Sci 436.

[8] Users receive an average of 42 e-mail messages per day. See S Whittaker "Personal information management: From information consumption to curation" (2011) 45(1) ANNU REV INFORM SCI 1, 19.

[9] Total worldwide revenues for the Email Market will reach nearly $10 billion by year-end 2013, growing to over $20 billion by year-end 2017, representing an average annual growth rate of 20%. Table 1 shows this growth forecast from 2013 to 2017. S Radicati and J Levenstein, 'Email Market, 20 , 2013-2017' (*The Radicati Group*, Inc. November 2013) http://www.radicati.com/wp/wp-content/uploads/2013/11/Email-Market-2013-2017-Executive-Summary.pdf accessed 15 May 2016.

[10] For instance, a study has shown that 41.2% claimed to use Gmail purely for personal emails, 2% used Gmail purely for business emails, and the remaining rest 56.8% used Gmail for both personal and business emails. Shen (n1) 2653.

[11] See Krebs on Security, 'How Much is Your Gmail Worth?' (June 2013) http://krebsonsecurity.com/2013/06/how-much-is-your-gmail-worth/ accessed 15 May 2016.

[12] According to a study of 38,000 inboxes and dozens of mail providers, 80% of users surveyed have an inbox with between 72 and 21,000 items. About 20 percent of users have more than 21,000 emails see D Troy 'The truth about email: What's a normal inbox?' Pando Daily, 5 Apr 2013, at http://pando.com/2013/04/05/the-truth-about-email-whats-a-normal-inbox/ accessed

an account is distributed into: requests for action (emails that require some kind of an action from a user, such as reply, sending different documents, confirmations etc. - 34%); information in the form of an attachment, web link or phone number (36%) and scheduling (14% of messages).[13]

It is worth noting that the general rule in the average users' behaviour is keeping of emails, rather than deleting them. Research demonstrates that users keep about 70% of their e-mail messages.[14] This also proves that the principal functions of emails are information exchange and storage, and task delegation. Another fact that indicates the value of email is that it is one of the most used online services. According to a study, the total number of worldwide email accounts in 2013 was nearly 3.9 billion and is expected to increase to over 4.9 billion accounts by the end of 2017.[15] This is, however, not the number of users, as the study finds that the average number of email accounts per user is about 1.7 accounts per user.[16]

The consumer market is dominated by the email providers Google (Gmail), Microsoft (Outlook.com) and Yahoo! (Mail).[17] For this reason, the terms of service of these providers will be in the focus of the analysis in subsequent sections.

Notwithstanding the importance and the value of emails, the focus of this chapter will be on one particular aspect of emails, that is, whether an email is an asset capable of post-mortem transmission. Therefore, the analysis will mainly look at the nature of what might be most valuable for the users: the content of emails and the user's email accounts. The chapter will not discuss communications and metadata ('data about

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15 May 2016. Also, another study shows that the average size is 8,024 messages Whittaker (n 8) 2.6.

[13] L Dabbish et al 'Understanding Email Use: Predicting Action on a Message' (CHI 05 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems 2005) 695 http://www.cs.cmu.edu/~kiesler/publications/2005pdfs/2005-Dabbish-CHI.pdf accessed 15 May 2016.

[14] Kraut et al. (n 7).

[15] Ibid.

[16] Ibid.

[17] Radicati and Levenstein (n 9) 3.

data' - data describing other data; in the context of an email e.g. the date and time it was sent, user, recipient, a summary of the content, etc.[18]) or the email system and technical aspects. Rather, it will aim to question the legal nature of emails, represented by their content.

In contrast with chapter 3, where assets in VWs are looked at from a perspective of three layers (see section 3.2.), the case study of emails requires a different outlook. Here, there are two layers, both rather similar to layers one and three in VWs. The first one is the developers' code, which entitles the email providers to own the underlying email system and account created in order to enable the use of the system. The second layer is similar to the VWs third layer, as it mainly includes copyrightable material (see 3.2.1.). The difference is that the second layer in VWs, the one mimicking the real-world property objects (swords, ships, weapons, avatars, etc., see section 3.2.), does not exist in the case of emails (for the categories of email contents, see the following section). The quality of environmentality and physicality is lacking, due to the informational content of emails. Therefore, the approach in this chapter is different and different legal issues will be analysed, as set out below.

To answer the question of legal nature, the analysis will focus on copyright (user's rights to control the original content of emails they create), property in information (whether users generally own information contained in their emails) and personal data (whether users control/own data relating to them as identified or identifiable person; e.g. name, address, date of birth, genetic data, religious beliefs, photos etc.).[19]

In addition to the first and essential question of the legal nature of emails, further problems around transmission of emails on death identified in this chapter are the following: access to a user's account (regulated by service provider contracts, ToS); PMP (protection of the deceased's privacy); criminal legislation (laws on unauthorised access to computer systems); potential conflicts between wills, intestate succession laws and technological solutions to transmission of emails (e.g. Google Inactive

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[18] See e.g. L Greenberg 'Metadata and the world wide web' (2003) Encyclopedia of library and information science 1876, 1876.

[19] See the definition provided by the Article 2 (a) of the Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L 281, 23/11/1995 0031 – 0050.

Account Manager, see section 4.3.1.); jurisdiction and conflicts between the interests of the deceased, their family and friends. Most of these problems will be looked at in the respective sections below. The focus will, however, be on the legal nature of emails, access and the conflicts between wills, succession laws, and technology. The issues of jurisdiction and criminal law will be mentioned only briefly, in order to enable an in-depth analysis of the other issues. Another reason for this is that the focus of this thesis is mainly on the civil law issues, and criminal and conflicts of law issues are acknowledged but not dealt with in depth.

Further, it is it worth noting that the chapter will not look at the issues of the consumer protection law. Chapter 3 (section 3.4.) has found that the question of creating and/or recognising proprietary rights and interests is not an issue that can be regulated by contracts, but is one of the general laws of property/intellectual property. Substantive matters around legal nature of emails should be dealt with through the latter areas of law, and the findings from chapter 3 with regards to the consumer protection laws are applicable here and in chapter 5 as well.

The chapter will, therefore, seek to determine whether emails can be considered property/IP or some other form of protection is better suited for them. Further, after having explored these issues, the analysis will touch upon the current allocation of ownership in emails by contracts and the issues surrounding the potential post-mortem transmission. The aim is, eventually, to propose a solution for post-mortem transmission, notwithstanding legal issues and potential technological solutions.

4.1.1. Illustrations through case law

In order to bring the problems around post-mortem transmission of emails closer to the reader, and following the methodology established in the previous chapter, this section will first present the limited case law. The case law originates from the US and does not add much to solving the issues identified in this chapter. Rather, these cases drew the media and society attention to the issues of post-mortem transmission of digital assets generally, initiating further discussions in academic circles and some regulatory attempts (again, in the US, see section 4.5 and 6.2.1.).

US and European media widely reported the US case *In Re Ellsworth*.[20] In this case Yahoo!, as an email provider, initially refused to give the family of a US marine, Justin Ellsworth, killed in action in Iraq, the access to his email account. They referred to their terms of service, which according to Yahoo!, were designed to protect the privacy of the user by forbidding access to third parties on death.[21] Yahoo! also argued that the US Electronic Communications Privacy Act of 1986 prohibit them from disclosing user's personal communications without a court order.[22] The family claimed that as his heirs, they should be able to access his emails and the entire account, his sent and received emails, as his last words. Yahoo!, on the other hand, had a non-survivorship policy and there was a danger that Ellsworth's account could have been deleted. The judge in this case, however, allowed Yahoo! to enforce their privacy policy and did not order the transfer of the account log-in and password. Rather, he made an order requiring Yahoo! to enable access to the deceased's account by providing the family with a CD containing copies of the emails in the account.[23] As reported by the media, Yahoo! originally provided only the emails received by Justin Ellsworth on a CD, and after the family had complained again, allegedly subsequently sent paper copies of the sent emails.[24] This case clearly illustrates most of the issues

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[20] *In Re Ellsworth*, No. 2005-296, 651-DE (Mich. Prob. Ct. 2005). See e.g. BBC News, Who owns your e-mails?, (11 Jan 2005) http://news.bbc.co.uk/1/hi/magazine/4164669.stm accessed 15 May 2016; P Sancya, 'Yahoo will give family slain Marine's e-mail account' (*USA Today,* 21 Apr 2005) http://usatoday30.usatoday.com/tech/news/2005-04-21-marine-e-mail_x.htm?POE=TECISVA accessed 15 May 2016; See discussion in T Baldas 'Slain Soldier's E-Mail Spurs Legal Debate: Ownership of Deceased's Messages at Crux of Issue' (2005)27 Nat'l L.J. 10, 10.

[21] 'No Right of Survivorship and Non-Transferability. You agree that your Yahoo! account is non-transferable and any rights to your Yahoo! ID or contents within your account terminate upon your death. Any free account that has not been used for a certain period of time may be terminated and all contents therein permanently deleted in line with Yahoo!'s policy.' At http://info.yahoo.com/legal/uk/yahoo/utos-173.html accessed 15 May 2016.

[22] See A Kulesza 'What Happens to Your Facebook Account When You Die?' (*Blog*, 3 February 2012) http://blogs.lawyers.com/2012/02/what-happens-to-facebook-account-when-you-die/ accessed 15 May 2016.

[23] See Associated Press release (*justinelsworth.net*, April 21 2005) at http://www.justinellsworth.net/email/ap-apr05.htm accessed 15 May 2016.

[24] See media reports (n 20).

in post-mortem transmission of emails mentioned in the previous section (i.e. PMP, access, conflicts of interests of the deceased and family).

Edwards and Harbinja provide a few possible interpretations of the case.[25] One interpretation is that Yahoo! owned the copies of the emails stored on their servers, but were required by the court order to make the information in them available. For this option, justification can be found in the traditional division of rights in letters (see section 4.2.), where Yahoo! would own the emails (as a physical representation), but the deceased, as an author, owned the copyright, transferred subsequently to his/her heirs. The heir would have rights of copyright holders. The second interpretation is to regard the deceased as the owner of the emails while alive which then could be transmitted to the heirs of the deceased on death.[26] Edwards and Harbinja regard this option as less likely, as the court would then have considered the rights of the heirs as overriding the terms and conditions entered into by the deceased, ordering full access to the account. This, however, had not happened, and the court only ordered provision of emails content. It can be concluded that the court did find Yahoo's ownership of the account, but also the heirs' right to access the content of emails. Therefore, the case left many questions open and provided little guidance and no principles that could be applied subsequently (in relation to property, IP and privacy).[27]

A subsequent is case *Marianne Ajemian, co-administrator & another vs. Yahoo!, Inc.*[28] In this instance, the plaintiffs, co-administrators of their brother John Ajemian's estate, brought the action in the Probate and Family Court in Massachusetts, requesting,

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[25] L Edwards and E Harbinja 'What Happens to My Facebook Profile When I Die?': Legal Issues Around Transmission of Digital Assets on Death", in C Maciel and V Pereira, eds, *Digital Legacy and Interaction: Post-Mortem Issues* (Springer 2013) 115 available at SSRN: http://ssrn.com/abstract=2222163 accessed 15 May 2016.

[26] See Edwards and Harbinja (n 25) 21 and (n 22).

[27] See similarly, J Darrow and G Ferrera 'Who Owns a Decedent's E-Mails: Inheritable Probate Assets or Property of the Network?' (2006) 10 N.Y.U. J. Legis. & Pub. Pol'y Vol. 281, 308; or J Atwater 'Who Owns Email? Do you have the right to decide the disposition of your private digital life?' (2006) Utah L.Rev 397, 399.

[28] 2013 WL 1866907, Mass.App.Ct.,2013., No. 12-P-178.

inter alia, a declaration that e-mails John sent and received using a Yahoo! e-mail account are property of his estate. A probate judge dismissed the complaint, concluding that a forum selection clause required that suit be brought in California. The Appeals Court of Massachusetts reversed the first instance judgement, ordering further proceedings by the probate court, where the question of ownership of emails, amongst others, should be decided. Yahoo!, similarly to the Ellsworth case, contended that the Stored Communications Act[29] prohibited disclosure of the contents of the e-mail account to the administrators of Ajemian's estate. It remains to be seen whether the court will follow the Ellsworth case logic or be more explicit and conclude that there are property rights in emails and whether they form a part of the account holder's estate.

Finally, the case of Sahar Daftari points at the international jurisdictional complications (another problem identified in the previous section).[30] Although it is not within the scope of this thesis to discuss the jurisdiction issue and the case relates to the subject matter of chapter 5 (social networks), it offers an interesting illustration of the further complexities that might arise in cases involving emails as well. On December 20, 2008, Sahar Daftary died in an alleged suicide in Manchester, England. Members of her family disputed that Sahar had committed suicide and believed that her Facebook account contained noteworthy evidence showing her actual state of mind in the days leading up to her death. Facebook refused to grant access to the account to the family without a court order and the family initiated a request to subpoena the records in the Californian courts, where Facebook is based. The court found that the US Stored Communications Act[31] (the same act relied on In Re Ellsworth) prevents a US service provider from disclosing stored communications in civil proceedings.[32] The court thus

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[29] 18 U.S.C. §§ 2701 et seq.

[30] *In re Request for Order Requiring Facebook, Inc. to Produce Documents and Things*, C 12-80171 LHK (PSG) (N.D. Cal.; Sept. 20, 2012).

[31] 18 U.S.C. § 2701.

[32] See In re Request for Order Requiring Facebook, Inc. to Produce Documents and Things (n30), citing *Theofel v. Farley-Jones*, 359 F.3d 1066, 1074 (9th Cir. 2004): 'Having reviewed the papers and considered the arguments of counsel, IT IS HEREBY ORDERED that Facebook's motion to quash is GRANTED. The case law confirms that civil subpoenas may

extended the effect of the US statute to a foreign citizen, stating that there was no duty to provide stored communications for the purpose of the foreign proceedings either. The Court held: 'It would be odd, to put it mildly, to grant discovery related to foreign proceedings but not those taking place in the United States.'[33] The court, interestingly, noted that Facebook could disclose the records to the family voluntarily, as this is in accordance with the Act. This case, like Ellsworth, is an example where precedence has been given to privacy as opposed to the claimed property right of the family and heirs.

There are currently no similar cases in the UK that would provide some guidance or even initiate discussions on the post-mortem issues. Some more general guidance in relation to the legal nature of emails, however, can be found in a recent English case that tackles the issue of property in emails. In *Fairstar Heavy Transport N.V. v Adkins*[34] Justice Edwards-Stuart concluded that emails could not be considered property. The case concerned a commercial dispute between Mr Adkins, the ex-employee of a company, and the new owners of the company. The dispute involved important emails sent to Mr Adkins, which had been forwarded to his private email address and deleted from the company server. The company claimed that the emails should be declared the property of the company. Referring to previous case law relating to the status of information as property in the context of letters,[35] Justice Edwards-Stuart identified a distinction between a physical medium and the information it carried, noting that only a physical object (paper) can be owned.[36]

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not compel production of records from providers like Facebook. To rule otherwise would run afoul of the "specific [privacy] interests that the [SCA] seeks to protect.' 2.

[33] Ibid.

[34] [2012] EWHC 2952 (TCC). See detailed analyses in Edwards and Harbinja (n 25).

[35] E.g. *Philip v Pennell* [1907] 2 Ch 577; *Boardman v Phipps* [1967] 2 AC 46; *Coogan v News Group Newspapers Ltd* [2012] EWCA Civ 48; *Force India Formula One Team v 1 Malaysian Racing Team* [2012] EWHC 616 (Ch).

[36] 'In my judgment it is clear that the preponderance of authority points strongly against there being any proprietary right in the content of information, and this must apply to the content of an e-mail, although I would not go so far as to say that this is now settled law. Some of the observations that I have quoted are in terms that are less than emphatic and, of course, the two contrary views in *Boardman quote at p 16 top v Phipps* are entitled to significant weight.' *Fairstar Heavy Transport NV v Adkins* [2012] EWHC 2952 (TCC), para 58; see also Lord

Justice Edwards-Stuart's analysis illustrates five different scenarios that would be the potential results if an e-mail was considered capable of being property. These scenarios will be discussed more in section 4.2.2.1.2. The sensible conclusion the judge made was that, due to practical reasons, and the fact that the misuse of information contained in emails is otherwise protected (confidential information, contracts, copyright), 'There are no compelling practical reasons that support the existence of a proprietary right - indeed, practical considerations militate against it.'[37] Subsequently, the Court of Appeal recognised the difficulties that property in information encounters conceptually. The court, however, wisely avoided this discussion and decided that the real issue in the case was that of the agency. The first instance decision, therefore, provides some guidance and an indication that in black-letter English law, emails are not considered property. This, at first glance, makes it clear that we need to consider some other legal mechanisms in order to define the nature of emails, such as copyright, contracts, and privacy. All these issues will be discussed in this chapter, along with black-letter and normative analyses of property in information (i.e. email content).

4.2. Legal nature of emails

In order to answer the main research question, whether emails are transmissible on death, the chapter will consider two alternative paradigms as to the nature of emails: 1. emails are protected by copyright as literary or artistic works; 2. they are property. *Prima facie*, emails are perceived mainly as literary works created by their authors, the email senders. Therefore, copyright appears to be one of the most obvious answers when determining the legal nature of emails. The following section will thus discuss copyright in emails, in relation to transmission on death. Subsequently, the

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Upjohn in *Boardman v Phipps* [1967] 2 AC 46, 127, 275; Lord Walker of Gestingthorpe in *Douglas v Hello! Ltd* [2008] 1 AC 1: 'That observation still holds good in that information, even if it is confidential, cannot properly be regarded as a form of property.'; *Force India Formula One Team v 1 Malaysian Racing Team* [2012] EWHC 616 (Ch).

[37] *Fairstar Heavy Transport NV v Adkins* [2012] EWHC 2952 (TCC) para 69.

analysis will embark on the issues of property in information and personal data (a type of email content not susceptible to copyright protection).

4.2.1. Copyright in emails and post-mortem transmission

As noted in section 4.1., emails contain a lot of potentially or actually copyrighted materials that users share with different recipients. These works can be protected by copyright as literary or musical works.[38] Although the attachments potentially have enormous value for the users, both economically and emotionally, the focus of this chapter is not on the copyrightable/copyrighted works in the form of attachments that have already been published elsewhere. These works may include books (published or not), stories, videos, photographs, music et al. The reason behind this decision is that, whereas some attachments may not be available anywhere else but only as emails (unpublished works), a majority of the authored works will probably be available and published elsewhere (offline and online).[39] In addition, if they are available elsewhere offline and/or online, these works do not represent digital assets *stricto sensu,* as defined in the Introduction to this thesis. They will then represent the physical manifestation of a part of a digital asset. For instance, there is the possibility that emails can be printed or saved on the recipient's or sender's computer. These materials are again, either a physical manifestation of digital assets or a fraction of an asset saved and stored in a digital form. For these materials the transmission is clear, and there is no need to discuss it in this thesis (copyright lasts for 70 years after the author's death and transmits to his next-of-kin). The focus, therefore, will be on the unpublished content of emails, either in the form of attachment or as a text of the message and what happens to copyright in this work post-mortem. An email as a

[38] S. 3 CDPA 1988; 17 U.S. Code § 101.

[39] Published encompasses Internet publications as well, for definitions of publication see e.g. UK Copyright, Designs and Patents Act 1988 (c. 48), section 175; US Copyright Code 17 U.S.C. § 101; Article 3 Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, revised at Paris July 24, 1971, 25 U.S.T. 1341, 828 U.N.T.S. 221; also see generally D McCallig 'Private but Eventually Public: Why Copyright in Unpublished Works Matters in the Digital Age' (2013) 10:1 *SCRIPTed* 43-44.

digital asset, will, therefore, be looked as holistically, meaning the emails included in a user's email account. Also, photographs will not be discussed in depth here. This type of content is much more associated with social networks, and therefore, it will be subject to analysis in the following chapter (section 5.2.1.).

Copyright in the EU, UK and the US subsists in unpublished works for a duration equal to the duration of copyright in published works, i.e. 70 years after the author's death.[40] Historically, at some point, copyright protection of unpublished work was perpetual in the common law jurisdictions, the UK and US.[41] This has been changed, and the duration has been harmonised at the EU level, as well as with the US law.[42] Additionally, an important shift in the EU copyright law resulted in incentivising the publication of unpublished works. The Copyright Term Directive, and consequently the UK law,[43] awarded 25 years of copyright protection for the first lawful publication of work previously unpublished, after its copyright protection of 70 years has expired.[44]

Emails, and attachments unpublished elsewhere and not existing in the physical form as defined by the courts, therefore, could potentially qualify for the copyright

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[40] Art 1 of Directive 2006/116/EC of the European Parliament and the Council of 12 December 2006 on the term of protection of copyright and certain related rights (codified version) [2006] OJ L372/12.

[41]In the UK, until the adoption of The Duration of Copyright and Rights in Performances Regulations 1995 S.I. No. 3297, in the US until the 1976 Copyright Act, when unpublished works were brought under the federal jurisdiction see e.g. E T Gard "January 1, 2003: The Birth of the Unpublished Public Domain and Its International Consequences" (2006) 24 Cardozo Arts & Ent. L.J. 687, 697–702; On the other hand, Scots law, for instance, historically did not recognise copyright in unpublished works and interestingly, for letters in particular, the courts drew on the Civilian *actio iniuriarum* and the Common Law idea of literary property to protect privacy in correspondence, see H L MacQueen 'Ae Fond Kiss: A Private Matter?' in A Burrows, D Johnston and R Zimmermann (eds), *Judge and Jurist: Essays in Memory of Lord Rodger of Earlsferry* (OUP, 2013).

[42] Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights [1993] OJ L290/9; The 1976 Copyright Act 17 U.S. Code § 302.

[43] The Copyright and Related Rights Regulations 1996 S.I. No. 2967 reg 16.

[44] Article 4 Directive.

protection as literary works primarily.[45] Publishing to a limited number of people is not making the content available to the public, and therefore emails would not meet the requirement of publication in the UK and US.[46] The content will have to meet the general copyright requirements of originality and fixation (recording in the UK).

Fixation or recording would not create a significant obstacle, as the electronic fixation has been recognised as meeting the requirements.[47] The US law mandates that work is only fixed 'when its embodiment in a copy...is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for more than transitory duration.'[48] The focus of this definition is on the notion of 'a period of more than transitory duration'. The US courts have interpreted this in a number of cases, including *MAI Systems v Peak Computers*[49], where the court confirmed that reproductions in RAM (Random Access Memory) are copies fixed according to the Act. This finding is significant as RAM copies are not permanent and are only present while a computer is turned on.[50] In the UK, CDPA 1988 mandates that 'Copyright does not subsist in a literary, dramatic or musical work unless and until it is recorded, in

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[45] S 3(1) CDPA 1988, 17 U.S. Code § 101.

[46] See US case *Getaped.com, Inc. v. Cangemi* 188 F. Supp. 2d 398, 62 U.S.P.Q.2d (BNA) 1030 (S.D.N.Y. 2002), where publication on the website, available to all, constituted publication for the purpose of US Copyright Code 17 U.S.C. § 101. This interpretation would arguably comply with the UK Copyright, Designs and Patents Act 1988 (c. 48), section 175.

[47] Berne Convention in Art 2 does not require fixation, but allows member states to use this requirement in their national law. The US and the UK both utilised this option. The requirements set in the US: definition in Copyright Code 17 U.S.C. § 101; or UK: CDPA 1988 s 3(2) and s. 178.

[48] Copyright Code 17 U.S.C. § 101.

[49] 911 F.2d 511 (9th Cir. 1993).

[50] Other cases following this line of arguments are: *Triad Systems v. Southeastern Express Co.,* 64 F.3d 1330 (9th Cir. 1995); *Stenograph L.L.C. v. Bossard Associates, Inc., 1*44 F.3d 96 (D.C. Cir. 1998); *Advanced Computer Servs. v. MAI Systems,* 845 F.Supp. 356 (E.D. Va. 1994); *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.,* 53 U.S.P.Q.2d 1425 (D. Utah 1999); *Lowry's Reports, Inc. v. Legg Mason, Inc.,* 271 F. Supp. 2d 737 (D. Md. 2003); *Storage Technology Corp. v. Custom Hardware Engineering & Consulting, Inc.,* 2004 U.S. Dist. LEXIS 12391 (D. Mass. 2004).

writing or otherwise'.[51] Writing is further defined as '...any form of notation or code, whether by hand or otherwise and regardless of the method by which, or medium in or on which, it is recorded...'[52] The UK definition appears clearer than the US one, referring to any medium, therefore including digital recording as well. Accordingly, case law provides that 'an artistic work may be fixed in the source code of a computer program'.[53] Consequently, the fixation requirement is satisfied in the case of emails. Emails are stored 'more than transiently' on the service providers' servers, 'in the cloud', and as such are more permanent than in RAM.

Originality would, arguably, create a bigger issue, since many emails contain mere information, such as facts and personal data, and probably would not pass the threshold of originality developed by the UK and US courts (no matter how, admittedly, low the threshold is).[54] If we look at the cases involving copyright in letters, it is clear that for example business correspondence [55] or a solicitor's letter to his

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[51] CDPA 1988 s 3(2).

[52] S. 178 CDPA 1988.

[53] *SAS Institute Inc. v World Programming Ltd [2013] R.P.C. 17* para 29.

[54] For the US see *Burrow-Giles Lithographic Co. v. Sarony* 111 U.S. 53 (1884); *Feist Publications v. Rural Telephone Service Company, Inc.* 499 U.S. 340 (1991) at 363 ('As a constitutional matter, copyright protects only those constituent elements of a work that possess more than a de minimis quantum of creativity. Rural's white pages, limited to basic subscriber information and arranged alphabetically, fall short of the mark.'); Most important UK cases: *Walter v. Lane* [1900] A.C. 539; *Univ. of London Press, Ltd. v. Univ. Tutorial Press, Ltd*., [1916] 2 Ch. 601; *Interlego AG v Tyco Industries Inc* [1989] AC 217; *Express Newspapers Plc v. News (U.K.) Ltd.* [1990] F.S.R. 359 (Ch. D.); *Newspaper Licensing Agency, Ltd. v. Marks & Spencer, plc*, [2001] UKHL 38; [2002] R.P.C. 4; See e.g. D J Gervais 'Feist Goes Global: A Comparative Analysis of the Notion of Originality in Copyright Law' (2002) 49 (4) J. Copyright Soc'y U.S.A. 949; P Samuelson 'Originality Standard for Literary Works under U.S. Copyright Law' (2001-2002) 42 Am. J. Comp. L. Supplement 393; A Rahmatian 'Originality in UK copyright law: the old "skill and labour" doctrine under pressure' (2013) 44(1) IIC 4; A Waisman, 'Revisiting Originality' E.I.P.R. 2009, 31(7), 370-376.

[55] *Cembrit Blunn Ltd, Dansk Eternit Holding A/S v Apex Roofing Services LLP, Roy Alexander Leader* [2007] EWHC 111 (Ch) or *Tett Bros Ltd v Drake & Gorham Ltd* [1928-1935] MacG. Cop. Cas. 492 (Ch, 1934) copyright in the following text (omitting 'Dear Sir' and 'Yours' etc.) was held to be infringed: 'Further to the writer's conversation with you of to-day's date, we shall be obliged if you will let us have full particulars and characteristics of 'Chrystalite' or 'Barex.' Also we shall be obliged if you will let us have your lower prices for 1, 2, 3, 4 and 5 ton lots and your annual contract rates. We have been using a certain type of mineral for some

client[56] and personal letters[57] pass this threshold. This can mean that emails that consist of personal/professional correspondence and are of some length (even a few sentences) could satisfy the requirement of originality. A bigger problem would be, for instance, emails containing one sentence (e.g. 'I'll meet you at 9, OK'), data indicating time and place ('Meet me near Dream Square at 9 pm', 'My address is: 256 Wonderland Lanes, NL10PP, Neverland'), or a single word ('Deal', 'Fine', 'Perfect'...). The address and other personal data examples are clearly protected by data protection laws (see section 2.7.4.). In the UK, single words are refused copyright protection (e.g. Exxon).[58] The courts, however, had different views in awarding copyright protection to titles and headlines. For instance, 'Splendid Misery', a book title, was denied copyright in *Dick v Yates*,[59] same as 'the Lawyer's Diary' in *Rose v Information Services Limited*.[60] In other cases, however, headings were given the status of a literary work and were protected by copyright.[61] The ECJ has subsequently provided some guidance on this issue in the case of *Infopaq International A/S v Danske Dagblades Forening.*[62] The court opined that certain sentences or even parts of them could be copyrightable, depending on the originality of a respective sentence.[63] This decision has been followed by the English High Court and The Court

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time past and have not found it completely satisfactory, and as we shall be placing an order in the very near future we shall be obliged if you will let us have this information at your earliest convenience.'

[56] *Musical Fidelity Ltd v Vickers* [2002] EWCA Civ 1989; [2003] FSR 50.

[57] *Pope v. Curl* (1741) 2 Atk. 342; *Lord and Lady Percival v. Phipps* 2 V. & B. 19; *Macmillan & Co. v Dent*; [1907] 1 Ch. 107.

[58] See word 'Exxon' in *Exxon Corp. v. Exxon Insurance Consultants International Ltd* [1982] Ch. 119.

[59] [1881] Ch 6.

[60] [1978] FSR 254.

[61] *Shetland Times Ltd v Wills* [1997] F.S.R. 604, for more see H L MacQueen 'My tongue is mine ain': Copyright, the Spoken Word and Privacy' (2005) 68 M.L.R. 349.

[62] [2009] EUECJ C-5/08 (16 July 2009).

[63] See ibid para 47: '...the possibility may not be ruled out that certain isolated sentences, or even certain parts of sentences in the text in question, may be suitable for conveying to the reader the originality of a publication such as a newspaper article, by communicating to that

of Appeal in *The Newspaper Licensing Agency Ltd & Ors v Meltwater Holding BV & Ors.*[64] In the High Court, Proudman J applied the *Infopaq* test and concluded that '...headlines are capable of being literary works...'[65] The judge went even further holding that 'it appears that a mere 11 word extract may now be sufficient in quantity provided it includes an expression of the intellectual creation of the author.'[66] The US Copyright Office, conversely, denies registration of copyright in names, titles and short phrases.[67]

It is interesting to look briefly at a question of whether a string of emails would constitute a work of joint authorship. This, however, has not been tested in courts, and as in the case of social networks (see section 5.2.1.), the conversation would lack an essential element of a high degree of integrity, so that the contributions of individual authors are 'inseparable or interdependent parts of a unitary whole.'[68] or 'not distinct'.[69] Here, the contributions are easily distinguishable and separable, as they are all tagged by an author's name and can be edited/deleted at any time.[70]

In summary, the UK and EU law would be more likely to protect by copyright short length email content, as opposed to the US, where emails in the forms of single words

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reader an element which is, in itself, the expression of the intellectual creation of the author of that article. Such sentences or parts of sentences are, therefore, liable to come within the scope of the protection provided for in Article 2(a) of that directive.'

[64] [2010] EWHC 3099 (Ch); [2011] EWCA Civ 890.

[65] Ibid para 71.

[66] Ibid para 77.

[67] See U. S. Copyright Office, Circular 34, 'Copyright Protection Not Available for Names, Titles, or Short Phrases', reviewed: January 2012 http://copyright.gov/circs/circ34.pdf accessed 15 May 2016; *Becker v. Loew's, Inc.,* 133 F. 2d 889 - Circuit Court of Appeals, 7th Circuit 1943; *Glaser v. St. Elmo, C.C*., 175 F. 276, 278; *Corbett v. Purdy,* C.C., 80 F. 901; *Osgood v. Allen*, 18 Fed.Cas. No. 10,603, p. 871; see *Warner Bros. Pictures v. Majestic Pictures Corp.*, 2 Cir., 70 F.2d 310, 311; *Harper v. Ranous*, C.C., 67 F. 904, 905; *Patten v. Superior Talking Pictures*, D.C., 8 F.Supp. 196, 197.

[68] US Copyright Code ibid.

[69] UK Copyright, Designs and Patents Act (n 83).

[70] Hetcher (n 8) 888.

and short phrases would not be protected. For the emails that would pass these requirements (e.g. longer private or business letters), copyright in unpublished works would be applicable, for a reason that exchange of communication privately between the senders and recipients cannot be considered as a publication.[71]

Furthermore, authors of literary or artistic work would be entitled to moral rights, in addition to the copyright as an economic right. In the UK, moral rights include the right to be identified as the author (s. 77 CDPA), right to object to derogatory treatment of work (s. 80 CDPA) and right against the false attribution of work (s. 84 CDPA). The first two rights subsist as long as copyright lasts (70 years post-mortem), and the last one lasts until 20 years after a person's death (s. 86 CDPA). Unless a person waives his moral rights (s. 87 CDPA), the right to be identified as author and the right to object to derogatory treatment of work transmit on death, is passing on to the person as directed by will, or a person to whom the copyright passes, or sit exercisable by a personal representative (s. 95 CDPA). The right against false attribution is only exercisable by a personal representative, under the same provision of the CDPA.

The US Copyright Act contains a similar provision as to the types of the moral right conferred to the authors. However, these rights expire on author's death and therefore are not applicable to our issue of post-mortem transmission of copyright in emails content.[72]

In the UK, unless waived, therefore, users would have moral rights for 70 or 20 years post-mortem, depending on the type of right. Moral rights in the UK, in principle, transmit on death, but there are further relevant issues in relation to the limited access of a user's heirs to this content. Since we do focus on the unpublished work in this chapter (as the published works can be accessed elsewhere), the problems with passing them on are identified in the section below.

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[71] As it is private communication, and not publication according to the statutory definitions. See n 45.

[72] § 106A.

4.2.1.1. Analysis

Authors who argue that copyright is the right approach to the protection of emails, especially from the post-mortem perspective, analogise emails with letters, claiming that as authors, users should have property in copies and copyright and the heirs should be able to inherit it just like the letterboxes.[73] Regarding letters, English law has a long established principle that the physical medium, paper, is capable of being owned, whereas information contained therein is not.[74] Similarly, in the US, the law provides that an author retains copyright in the letter, irrespectively of the physical possession of the letter.[75]

It is suggested in this chapter that the letter analogy is unsuitable. The problem with it is in that there is no physicality in emails (art least not as traditionally conceived by the courts, requiring tangibility or corporeality). In the case of emails, unlike the letters, there is only the content, information, the account owned by the service provider; the underlying electrons travelling through the Internet and eventually, the object code, 1s and 0s (see section 3.2.). The possession of emails is not exclusive (as in the case of letters), and there is a lack of control required for property in the physical medium.

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[73] See J Mazzone 'Facebook's Afterlife' (2012) 90 N Carolina Law Rev 143, 10; referring to *Grigsby v. Breckenridge* 65 Ky. (2 Bush) 480 (1867); see also 17 U.S.C. § 202 ('Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy . . . in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.').

[74] *Boardman v. Phipps* [1967] 2 AC 46 at pp 89, 102 and 127. E.g. The 19th century case of *Grigsby v. Breckenridge* Under the law, 'the recipient of a private letter, sent without any reservation' acquired 'the general property, qualified only by the incidental right in the author to publish and prevent publication by the recipient, or any other person.' This 'general property', the court added, 'implies the right in the recipient to keep the letter or to destroy it, or to dispose of it in any other way than by publication.'

[75] See e.g. *Salinger v. Random House* 811 F.2d 90 (2d Cir. 1987); *New Era Publications v. Henry Holt & Co.* 873 F. 2d 576 (2d Cir. 1989); 17 U.S. Code § 202; See W M Landes, 'Copyright Protection of Letters, Diaries and Other Unpublished Works: An Economic Approach' (1992) 21 J. Legal Stud. 79.

Therefore, as rightly remarked by Justice Edwards-Stuart, property and the letter analogy is misplaced here (see section 4.2.2.). Perhaps, a more acceptable analogy would be a metaphorical one, when discussing the personal value of emails comparable to the value that the family and next-of-kin attach to such letters. Again, the real problem is in the 'letterbox', which is an account here. Thus, we face problems of ownership as well as access, since the deceased's emails will probably only exist in an online web mail account the heirs do not control (see section 4.3.1.).

Looking at the content only, copyright in emails would imply that the heirs can control the publication and have copyright in the unpublished works.[76] However, as seen in the following sections, access to emails is not a simple question, and it is often denied to the heirs of a deceased user. Consequently, the potential publication of an unpublished work contained in an email might not be lawful (as required by the UK and EU law, see section above), as it would be contrary to the terms and conditions agreed upon by the user. It would, therefore, be unlikely that the heirs, under the current terms and conditions would be able to lawfully access and publish this work, if the access to the email account is unlawful.

One could counter-argue that the contract with the service provider ends on death and this is not applicable anymore, and the heirs would be able to publish the work lawfully. This is quite debatable, however. The contract ends, and after the period of inactivity, the account is deleted, so there can be no access anyway. Even if the heirs/personal representatives would request access before this time expires, the providers would most likely refuse to grant it, allowing access in exceptional circumstances and invoking PMP (see section 4.3.1.). One could note that this scenario would be similar to an offline one where an heir inherited copyright in letters, but had to steal them from the house of the dead person's former lover, or publish them against the wishes of the deceased (e.g. Max Brod publishing Franz Kafka's manuscripts, contrary to his expressly stated wish).[77] Would this publication be equally 'unlawful'? In theory, arguably it would, but considerable differences are deeming this analogy inadequate. The publication against an author's wishes is weighted against the interests of the public to get access to these works in the second

[76] See CDPA 1988 s. 93 'Copyright to pass under will with unpublished work'.

[77] See L J Strahilievitz, 'The Right To Destroy' (2005) 114 Yale L.J 781, 830–31.

scenario. These are, however, comparatively, exceptional cases and most content would not belong to this category. The first example is inapplicable to the online world, as it would be harder to gain access to emails, both for practical reasons (it would require a level of technology skills to break into an email account), and second, the providers would disable the access, contractually and using technological restrictions.

Moreover, according to s. 93 CDPA 1988, another requirement is that the beneficiary is entitled by a bequest to 'an original document or other material thing recording or embodying a literary, dramatic, musical or artistic work which was not published before the death of the testator' and consequently to copyright embodied in such a medium. The problem with applying this provision to unpublished email contents is in the fact that email accounts are not being bequeathed and they probably cannot be considered material things or property for the purpose of this definition. It would be very difficult to interpret this provision in order to permit transmission of unpublished social network works. Even if the will simply says 'I leave my whole estate to x' or 'the residue', an 'estate' will not be sufficiently wide to include these works (see section 2.7.). Emails, as suggested in the following section, are not property, nor are the underlying accounts. The requirement of materiality is lacking, and there is a problem of accessing this copyrightable material due to the contractual limitations (see section 4.3.1). The provision would need to be changed or the technology solutions (as proposed in the final section of this chapter), would need to be recognised as an 'entitlement' for the purpose of s. 93 CDPA 1988.

In the US, the federal copyright law does not include similar limitations to the UK ones set out above. The US Copyright Code equates transmission of copyright with the transmission of personal property.[78] There are, however, similar issues of accessing this content (see section 4.3.1) and privacy interests of the deceased that might prevent the default transmission of copyright in emails content.

A different argument against using copyright to address digital remains has been put forward by McCallig. He argues that this would jeopardise PMP of the deceased, as,

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[78] '(1) The ownership of a copyright may be transferred in whole or in part by any means of conveyance or by operation of law, and may be bequeathed by will or pass as personal property by the applicable laws of intestate succession.' (d) (1) 17 U.S. Code § 201.

after the expiry of copyright, these expressions and communications would fall into the public domain, the service providers could use the content as they wish, like the rest of society.[79] McCallig argues that this would discourage the deceased to leave the expressions behind and rather, in fear of public disclosure, they would delete them and leave nothing to the friends, family, historians and society at large.[80] This, however, needs to be taken with caution, since the decision of the deceased would not be the same in every case imaginable. All this leads to the solutions suggested later in this chapter.

To conclude, the problem with copyright is that not all emails would meet the requirement of originality, and consequently, we would have a regulatory vacuum for a considerable number of emails. For those emails that would satisfy copyright requirements, the problem is that terms and conditions and PMP might clash with this as the heirs might decide to publish something that was not intended to be disclosed by the deceased and is highly personal (see more below). This eventually will result in the issue of limiting the deceased's autonomy, usually respected for offline assets (through testamentary freedom in this case).[81] Therefore, copyright protection of emails does not seem to be a helpful solution for the issues surrounding their post-mortem transmission in general. It could be useful for a fraction of emails that would meet copyright requirements. However, in order to tackle emails as digital assets holistically, an alternative model of protection is required.

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[79] 'The impact of the expiry of copyright in unpublished works now means that an author or his heirs are no longer the gatekeepers between the private and public domain.' McCallig (n 39) 55.

[80] Ibid 56.

[81] The concept is generally considered to be wider and more significant in common law countries. See e.g. F du Toit 'The Limits Imposed Upon Freedom of Testation by the Boni Mores: Lessons from Common Law and Civil Law (Continental) Legal Systems' (2000) 11 Stellenbosch L. Rev. 358, 360; or M J De Waal 'A comparative overview' in K Reid, M J De Waal and R Zimmermann, eds, *Exploring the law of succession: studies national, historical and comparative* (Edinburgh University Press 2007) 1-27, 14; R A Trevisani and W Breen '1. USA' in *International Legal Practitioner, Restrictions on Testamentary Freedom: A Comparative Study and Transnational Implications* (1990) 15 Int'l Legal Prac. 14, 14-16; KF C Baker '4. England' in ibid 20-24; A Steiner '5. Germany' in ibid 24-26.

4.2.2. Property in emails

As indicated in section 4.1., emails of an average user will contain information, personal data, and copyrightable content. Therefore, the focus of the following sections will be to information and personal data, representing a high proportion of email content.

This chapter subsequently demonstrates that the courts use the same analogy as this analysis and primarily discuss the informational character of emails, as their predominant content (see section 4.1.). The information here (as in the majority of the analysed and referred to legal scholarship) encompasses data, ideas, facts, news, etc. This meaning should be taken as an umbrella term for all the diverse types of data and information, not necessarily used in the same manner by the information science literature.[82] In the case of emails, for instance, information would include non-copyrightable material, such as short phrases, single words, jokes, etc.

Compared to the other case studies in this thesis (VWs and SNSs, chapter 3 and 5), the legal implications of emails have at least initially been addressed by the courts (see *Fairstar*, section 4.2.2.1.2.). Nevertheless, the case law in England and the US about the nature of emails, as seen above, is scarce, hard to interpret, decided by lower courts and often contradictory.

The following section will explore black-letter law regarding property in information and personal data. Along with the normative background discussed subsequently, the black-letter law analysis will serve as a basis to explore whether some of the email content represented by information can be considered property.

[82] Nimmer and Krautahaus distinguish for instance, amongst other criteria they use, information products by the form of information (summarised data, analysed data, unorganised and organised raw data). R T Nimmer and P A Krauthaus, 'Information as a Commodity: New Imperatives of Commercial Law' (1992) 55 Law & Contemp. Probs. 103, 110.

4.2.2.1. Information as Property

4.2.2.1.1. Personal Data

In this section, personal data are discussed at the outset, for the reason that their non-proprietary character is very clear. Information, in general, is a less straightforward example so that the discussion will start with this rather settled issue, at least in terms of black-letter law and the majority of legal scholarship.

Personal data, as noted earlier, form a very significant part of an email's contents. Therefore, the legal nature of personal data protection will be explored here briefly. Personal data belong to the broad category of information. This data, however, have some distinctive features as well, as they are intrinsically tied to a person and are in focus of so-called information privacy. Therefore, privacy regimes employ different instruments to award protection to personal data. Models based on human rights, torts or contracts have been widely discussed or applied. European countries mainly perceive privacy and control over personal data as a human right, establishing the EU-wide data protection regime, currently in the process of comprehensive reform.[83] The United States has been using a tort law model.[84] The tort model has recently penetrated English law in *Google Inc v. Vidal-Hall & Ors,*[85] where the Court of Appeal recognised the 'tort of misuse of private information.' This decision has a potential to revolutionise English law on the protection of personal data. The true effects of the decision, however, will be tested over time, in the subsequent cases.

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[83] The Charter of Fundamental Rights of the European Union, art. 8, Dec. 7, 2000. See, e.g., C Prins, 'Privacy and Property: European Perspectives and the Commodification of our Identity' in L Guibault and B Hugenholtz, eds, *The Future of the Public Domain* (2006) 223–57, 223.

[84] Restatement (Second) of Torts §§ 652A-652E (1977); A J McClurg,' A Thousand Words are Worth a Picture: A Privacy Tort Response to Consumer Data Profiling' (2003) 98 NW. U. L. REV. 63.

[85] *Google v. Vidal-Hall* [2015] EWCA Civ 311.

Personal data have not traditionally been considered a type of property. The question is therefore purely a theoretical one, and scholars contemplate it when trying to identify the best regime for protecting personal data.

The property rights model is based on a presumption that personal data in practice already are, or should be considered as an asset or commodity.[86] The property rights model for the protection of privacy has been the subject of an extensive debate within the US legal and economic scholarship. Most of the arguments that the proponents of this system use focus around the main goals of enabling individuals to control the collection, use and transfer of personal data better, to participate in sharing the profit resulting from the use and processing of personal data, and forcing companies to internalise these new costs and make better decisions on investing in the collection and use of personal data.[87] In addition, since property rights are rights *in rem* and have *erga omnes* effect, i.e. can be enforced against anyone (see section 2.2.), proponents argue that property in personal data could help individuals to protect their rights not only against data controllers [88] but against third parties as well. [89] Additionally, a significant benefit of property over torts privacy regime is the principle that there is no need for individuals to demonstrate harm in order to be able to protect their property (see section 2.3.1.). Ownership entails the right to control one's property, and this is irrespective of any actual harm potentially caused. Tort regime is

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[86] *See*, *e.g.*, World Economic Forum, 'Personal Data: The Emergence of a New Asset Class 5' 7, http://www3.weforum.org/docs/WEF_ITTC_PersonalDataNewAsset_Report_2011.pdf accessed 15 May 2016.

[87] P Samuelson, 'Privacy as Intellectual Property?' (1999) 52 STAN. L. REV. 1125, 1128.

[88] 'Data controllers' is the EU data protection concept, meaning 'the natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data; where the purposes and means of processing are determined by national or Community laws or regulations, the controller or the specific criteria for his nomination may be designated by national or Community law.' *See* The Data Protection Direction 95/46/EC, art. 2 d, 1995.

[89] *See* B J Koops, 'Forgetting Footprints, Shunning Shadows: A Critical Analysis of the 'Right to Be Forgotten' in Big Data Practice' (2011) 8 SCRIPTed, 256–258, 256. Or for the US perspective, see C Conley, 'The Right to Delete' (2010), https://www.aaai.org/ocs/index.php/SSS/SSS10/paper/view/1158.

based upon the right to restitution for harm. This is true both for the European and the US legal contexts. [90]

There are, nevertheless, significant disadvantages of the property model. Thus, for example, Litman forcefully argues that the property model would encourage transaction in personal data, which should, in fact, be discouraged. Also, alienability as a feature of property would vest control in the data miner, rather than the individual and result in less privacy eventually.[91] Thus, propertisation will allow the purchaser of personal data to sell it further and therefore lessen a control that owner initially had.[92] These arguments, however, are based on a presumption of a full alienability of property. This does not have to be the case. [93] To overcome this unwanted consequence of propertisation, the authors propose 'hybrid alienability'[94] or a model resembling the limited rights granted under copyright law rather than a 'traditional "property" right, a right against all comers and all uses.'[95]

Most propertisation of personal data arguments originates from the United States. There are some examples of the authors discussing the phenomenon in the European context, too. Prins, for instance, characterises the EU regime as utilitarian, as it aims to promote the free flow of personal data, and rather controversially argues that the

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[90] Ibid 247.

[91] J Litman, 'Information Privacy/Information Property' (2000) 52 Stan. L. Rev. 1283, 1304; see also J E Cohen, 'Examined Lives: Informational Privacy and the Subject as Object' (2000) 52 Stan. L. Rev. 1373, 1391.

[92] Samuelson (n 87) 1136.

[93] See, e.g., J B Baron, 'Property as Control: The Case of Information' (2012)18 Mich. Telecomm. & Tech. L. Rev. 382–383, 367; P M Schwartz, 'Property, Privacy, and Personal Data' (2004) 117 HARV. L. REV. 2055, 2093; S Rose-Ackerman, 'Inalienability and the Theory of Property Rights' (1985) 85 COLUM. L. REV. 931 (arguing that 'alienability is not a binary switch to be turned on or off, but rather a dimension of property ownership that can be adjusted in many different ways'); L A Fennell, 'Adjusting Alienability' (2009) 122 HARV. L. REV. 1403, 1408.

[94] Schwartz (n 93) 2094–2098 (discussing model of property rights in personal data, which would 'permit the transfer for an initial category of use in personal data, but only if the customer is granted an opportunity to block further transfer or use by unaffiliated entities').

[95] Cohen (n 91) 1428–1429.

EU regime is more receptive to a property regime than the regime of the United States.[96] Similarly, discussing the property model, Purtova argues that it could provide a useful framework, which would enable better control of personal data, even within the European Union, notwithstanding the differences in property concepts both in common and civil law countries. She argues primarily for introducing the protective features of property, its *erga omnes* effect, rather than its alienability feature.[97] In the earlier work, this author has argued that due to the introduction of the right to be forgotten and data portability rights, the proposed data protection regulation is moving towards the propertisation of personal data.[98]

In summary, personal data have never been legally protected as property. Propertisation arguments remained at the theoretical level, without influence on the legislation or case law.[99] Protection of personal data has been provided through data protection legislation, by breach of confidence or as torts. Evidence presented suggests many problems in conceiving personal data as property, a majority of the arguments originating from the general discussion on propertisation of information. The arguments refer to the problems of incidents, i.e. information does not share the incidents of physical objects of property (see section 2.2 and 4.2.2.1.1.3.1). In addition, propertisation may produce monopolisation of information and personal data and clash with freedom of speech (see section 4.2.2.1.3.2. for more details). Finally, as demonstrated above, propertisation would contradict with the human right nature of privacy. Propertisation of personal data, therefore, remains a theoretical construct, a rather unsuccessful one so far.

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[96] Prins (n 83) 245**.**

[97]See N Purtova, 'Property in Personal Data: Second Life of an Old Idea in the Age of Cloud Computing, Chain Informatisation, and Ambient Intelligence' in S Gutwirth et al. eds, *Computers, Privacy and Data Protection: An Element of Choice* (Springer, 2011) 61 ('Property, with some limitations resolved by regulation, due to its *erga omnes* effect and fragmentation of property rights, has the potential to reflect and control this complexity of relationships. This may be considered an instance of property exercising its protective rather than market function; it aims at making sure that even after transfer of a fraction of rights, a data subject always retains basic control over his personal information.').

[98] E Harbinja, 'Does the EU Data Protection Regime Protect Post-Mortem Privacy and What Could Be The Potential Alternatives?' (2013)10 ScriptEd 19.

[99] Ibid 21..

4.2.2.1.2. *Law on Information as Property*

In black-letter law, the general approach is that information is indeed not regarded property. The English common law has repeatedly refused to recognise property in information, with some sporadic counterexamples. The following section follows the main black-letter arguments against propertising information, focusing on the nature of the civil law protection of information. The reason for this is that the thesis has adopted a civil law perspective as a main focal point, which is consistent with the latter exploration of post-mortem ownership of emails. Succession, as well as property and copyright, are predominantly civil law issues, so the criminal law discussions are outside the scope of this thesis. In addition, the courts have traditionally applied different rationale in assessing property for the purpose of criminal and civil cases.

English common law in a majority of cases has not been ready to recognise information as property. For instance in *Boardman v Phipps*, [100] Lord Upjonh maintained 'it is not property in any normal sense, but equity will restrain its transmission to another if in breach of some confidential relationship'.[101] There are some earlier authorities in English common law conferring proprietary character to the certain kinds of information: *Jeffrey v. Rolls Royce Ltd*[102] where Lord Redcliffe treated 'know-how' as an asset distinct from the physical records it was contained[103]; *Herbert Morris Ltd v. Saxelby*[104] where Lord Shaw of Dunfermline held that trade secrets are

[100] [1967] 2 AC 46 (HL).

[101] Ibid 128.

[102] [1962] 1 AER 801.

[103] Ibid 805.

[104] [1916] 1 AC 688 (HL).

'his master's property'[105]; *Dean v. MacDowell*[106] Judge Cotton held that information constitutes property of the partnership.[107] Nevertheless, Palmer and Kohler state that these authorities do not establish 'a universal characterisation of information as property.'[108] Rather, other rules of law, (like contract, tort and breach of confidence) are desired.[109]

The infamous case where an English court found property in information is *Exchange Telegraph Co. v. Gregory & Co.*[110] There, the Court of Appeal upheld an injunction to restrain the defendant broker from publishing information, the quotations in stocks and shares from the Stock Exchange, on the grounds that the information was the plaintiff's property.[111] However, this stance has not been supported by most of the subsequent case law.

In the United States, the status of information as property authorities vary significantly among the individual states, but courts are more willing to recognise certain kinds of information status as property. As demonstrated below, examples include the 'fresh news' doctrine found in the context misappropriation and trade secret law.

In US *International News Service v. Associated Press*,[112] the Supreme Court held that fresh news could be regarded as quasi-property, provided that misappropriation by a competitor constitutes unfair competition.[113] There, the Court used a classical

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[105] Ibid 714.

[106] (1878) 8 Ch D 345.

[107] Ibid 354.

[108] P Kohler and N Palmer, 'Information as Property' in N Palmer and E McKendrick eds. *Interests in Goods* (2d ed. Lloyd's of London Press Ltd, 1993) 7.

[109] Ibid 4–5.

[110] [1896] 1 QB 147.

[111] Ibid 152–153 (Lord Esher M.R.) ('This information . . . is something which can be sold. It is property, and being sold to the plaintiffs it was their property. The defendant has, with intention, invaded their right of property in it, and he has done so surreptitiously and meanly.').

[112] 284 US 215 (1918).

[113] Ibid 236 ('Regarding the news, therefore, as but the material out of which both parties are seeking to make profits at the same time and in the same field, we hardly can fail to recognize

Lockean justification for establishing quasi-property in the news, invoking the pains and labour that were taken advantage of by the plaintiff's competitor. The case was a base for developing the doctrine of misappropriation in the United States 'as a general common law property right against some takings of information of commercial value.' Moreover, while both state and federal courts have adopted the doctrine as a general rule of unfair competition (thus granting protection to objects outside the reach of intellectual property protection), it has been widely criticised for its lack of analysis and superficiality.[114] In essence, there is a fear that this doctrine awards protection to objects that conventional body of intellectual property law refuses to protect[115] thus potentially restricting access to the public domain while upsetting the balance intellectual property law attempts to achieve.[116] The doctrine has been a subject of wide controversy in American academic writing.[117] Nonetheless, lower courts have followed the rule of misappropriation outlined in *International News Services*.[118]

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that for this purpose, and as between them, it must be regarded as quasi property, irrespective of the rights of either as against the public.').

[114] S M Besen and L J Raskind, 'An Introduction to the Law and Economics of Intellectual Property' (1991) J. Econ. Persp. 3, 25.

[115] Such as fact, for instance. See *Int'l News Serv. v. Assoc. Press*, 248 U.S. 215, 250 (1918) (Brandeis, J., dissenting) ('The general rule of law is, that the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communications to others, free as the air to common use.').

[116] This is the balance between incentivising inventions and creativity (utilitarian theories, see discussion in *s*ection 4.2.2.1.3.1. and rewarding labour, see discussion in section 4.2.2.2.1.3.2. on the one hand, and freedom of expression and access to knowledge and public domain, on the other. *See* discussion in note 173.

[117] See, e.g., D G Baird, 'Common Law Intellectual Property and the Legacy of International News Service v. Associated Press' (1983) 50 U. CHI. L. REV. 411, 411; E J Sease, 'Misappropriation is Seventy-Five Years Old; Should We Bury It or Revive It?' (1994) 70 N.D. L. REV. 781, 781; R A. Be, 'Dead or Alive?: The Misappropriation Doctrine Resurrected in Texas' (1996) 33 HOUS. L. REV. 447, 449.

[118] R Y Fujichaku, 'The Misappropriation Doctrine in Cyberspace: Protecting the Commercial Value of "Hot News" Information' (1998) 20 U. HAW. L. REV. 421, 447. Most of the cases where courts did recognise a misappropriation action involved either appropriation of breaking news or sports performances, likely because that information was a source of revenue for media companies. See, e.g., *Assoc. Press v. KVOS, Inc*., 80 F.2d 575 (9th Cir. 1935*), rev'd on other grounds*, 299 U.S. 269 (1936); *Pottstown Daily News Publ'g Co. v. Pottstown Broad*. Co., 192 A.2d 657 (Pa. 1963); 202 *Pittsburgh Athletic Co. v. KQV Broad. Co.*, 24 F. Supp. 490 (W.D.

In contrast to the US misappropriation doctrine announced in *International News Services*, England established the doctrine of breach of confidence, aimed at providing protection for valuable information.[119] Breach of confidence is an equitable doctrine that possesses the main purpose similar to that of the American 'trade secret law' doctrine.[120] Regarding breach of confidence, English courts seem to agree upon that information cannot be considered property[121] and, arguably, that rather protection instead lies in tort law. For example, in *OBG v Allan*, Lord Walker stated: 'Information, even if it is confidential, cannot properly be regarded as a form of property.'[122] Similarly, in *Moorgate Tobacco v Philip Morris*, Judge Deane, writing about breach of confidence, declared that confidence's 'rational basis does not lie in proprietary right.' Rather, 'it lies in the notion of an obligation of conscience arising from the circumstances in or through which the information was communicated or obtained.'[123] However, a recent Court of Appeal case tied breach of confidence to intellectual property, deciding that confidential information should be regarded as a type of

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Pa. 1938); *Twentieth Century Sporting Club v. Transradio Press Serv.,* 300 N.Y.S. 159 (N.Y. Sup. Ct. 1937).

[119] C Waelde et Al, *Contemporary Intellectual Property: Law and Policy* (3rd ed. OUP, 2013) 774.

[120] Ibid 775–776.

[121] See, e.g., M Conaglen, 'Thinking about Proprietary Remedies for Breach of Confidence' (2008) 1 Intell. Prop. Q. 82, 84 ('The prevailing modern view is that the foundation of the doctrine of confidence does not rest in the protection of property.'); W Cornish and D Llewelyn, *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights* (Sweet and Mexwell, 2007) 8, 50–54

[122] *OBG Ltd. v. Allan* [2007] UKHL 21 at 275.

[123] *Moorgate Tobacco Co. Ltd. v. Philip Morris Ltd.* (No.2) [1984] 156 C.L.R. 414, 438. See also *Boardman v. Phipps* [1967] 2 A.C. 46, 89–90, 102, 127–128; *Breen v. Williams* [1996] 186 C.L.R. 71, 81, 91, 111–112, 129; *Cadbury Schweppes Inc. v. FBI Foods Ltd*. [1999] 167 D.L.R. (4th) 577 [48]; *Douglas v. Hello! Ltd.* (No.3) [2005] EWCA (Civ) 595 (Eng.); [2006] Q.B. 125 [119, 126].

intellectual property.[124] This, however, is an unusual decision, and it does not follow the principles established in the previous and applied in the subsequent case law.[125]

The doctrine of trade secrets is the American counterpart to breach of confidence in England. The Uniform Trade Secrets Act broadly defines trade secrets as any information that is secret, derives economic value from secrecy, and is the subject of reasonable measures to maintain its secrecy.[126] Generally, trade secrets can include various types of information, such as chemical formulas, source code, methods, prototypes, pre-release pricing, financials, budgets, contract terms, business plans, market analyses, salaries, information about suppliers and customers, experiments, positive and negative experimental results, engineering specifications, laboratory notebooks, and recipes.[127] Exploring the evolution of the doctrine in the US, Lemley[128] demonstrates the shift from referring to trade secrets as property in the nineteenth century, to a combination of contracts, torts and property, and eventually to the unfair competition approach adopted by the Restatement of Torts in 1939.[129] In England that shift never happened, and trade secrets remain protected by the breach of confidence doctrine.

Nevertheless, US courts have never really decided whether confidential information or trade secrets are property. Some have held that this inquiry is not essential and

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[124] *Coogan v. News Group Newspapers Ltd*. [2012] EWCA (Civ) 48.

[125] *See* discussion in the following section.

[126] Uniform Trade Secrets Act, 14 U.L.A. 529 § 1(4) (2005). However, U.S. courts tend to instead use the negative definition, defining trade secrets 'by what [they are] not.' D S Almeling, 'Seven Reasons Why Trade Secrets Are Increasingly Important' (2012) 27 Berkeley Tech. L.J. 1091, 1107.

[127] See ibid.

[128] 'The doctrine of trade secrets evolved out of a series of related common-law torts: breach of confidence, breach of confidential relationship, common-law misappropriation, unfair competition, unjust enrichment, and torts related to trespass or unauthorized access to a plaintiff's property. It also evolved out of a series of legal rules—contract and common law—governing the employment relationship.' M A Lemley and P J Weiser, 'Should Property or Liability Rules Govern Information?' (2007) 85 *Tex. L. REV.* 783, 789.

[129] Restatement of Torts § 757 (1939).

that what matters is that the information is actually protected.[130] Academic debate continues. Similarly, American academic debates over whether trade secrets are primarily property, contractual, intellectual property rights, torts, or something that belongs in the criminal law domain.[131] For commentators, trade secret law involves elements of different areas: property, contract, tort, fiduciary duty, and criminal law.[132] Other authors and courts describe trade secrets as property.[133] One of the earliest cases deeming trade secrets to be property is *Peabody v. Norfolk.*[134] There, the Massachusetts Supreme Judicial Court defined a principle applicable to property law

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[130] See A E Turner, *The Law of Trade Secrets* (Sweet & Maxwell, 1962) 12; *E.I. du Pont de Nemours Co. v. Masland*, 244 U.S. 100, 102 (1917); see also 'Nature of Trade Secrets and Their Protection' (1928) 42 *HARV. L. REV*. 254 (noting that property theories of trade secret protection have limitations and that, in the end, it may not matter whether courts regard trade secrets as property, provided they protect them).

[131] See e.g. W B Barton 'A Study in the Law of Trade Secrets' (1939) 13 U. Cin. L. Rev. 507, 558; J Chally, 'The Law of Trade Secrets: Toward a More Efficient Approach' (2004) 57 Vand. L. Rev. 1269; V Chiappetta 'Myth, Chameleon, or Intellectual Property Olympian? A Normative Framework Supporting Trade Secret Law' (1999) 8 Geo. Mason L. Rev. 69; D D Friedman et al. 'Some Economics of Trade Secret Law' (1991) 5 J. Econ. Persp. 6; C T Graves 'Trade Secrets as Property: Theory and Consequences' (2007) 15 J. Intell. Prop. L. 39; J W Hill 'Trade Secrets, Unjust Enrichment, and the Classification of Obligations' (1999) 4 Va. J. L. & Tech. 2; E W Kitch 'The Law and Economics of Rights in Valuable Information` (1980) 9 J. Legal Stud. 683; C Montville 'Reforming the Law of Proprietary Information' (2007) 56 Duke L.J. 1159; C J R Pace 'The Case for a Federal Trade Secrets Act' (1995) 8 Harv. J. L. & Tech. 427, 435-42; G R Peterson 'Trade Secrets in an Information Age' (1995) 32 Hous. L. Rev. 385; M Risch 'Why Do We Have Trade Secrets?' (2007) 11 Marq. Intell. Prop. Rev. 1; M P Simpson, 'Trade Secrets, Property Rights, and Protectionism – an Age-Old Tale' (2005) 70 Brook. L. Rev. 1121.

[132] Hill (n 131).

[133] See, e.g., Restatement (Third) of Unfair Competition § 39 cmt. b (1993) (describing early trade secret theory as based on property rights); *Carpenter v. United States*, 484 U.S. 19, 26 (1987) ('Confidential business information has long been recognized as property.'); *Electro-Craft Corp. v. Controlled Motion, Inc*., 332 N.W. 2d 890, 897 (Minn. 1983) ('In defining the existence of a trade secret as the threshold issue, we first focus upon the "property rights" in the trade secret rather than on the existence of a confidential relationship.'); *IMED Corp. v. Sys. Eng'g Assocs. Corp.*, 602 So.2d (Ala. 1992) ('Our conclusion in this regard is consistent with the purpose of the act—to protect individual property rights in trade secrets…').

[134] 98 Mass. 452, 457–58 (1868).

in general.[135] Regarding trade secrets, the court said that the inventor or discoverer of secret information does not have exclusive rights against the public or the good faith acquirer, 'but he has a property in it, which a court of chancery will protect against one who in violation of contract and breach of confidence undertakes to apply it to his own use, or to disclose it to third persons.'[136] Later, the courts continued to connect trade secrets to property. In 1984, The Supreme Court held that trade secrets are property for purposes of the Fifth Amendment's Takings Clause.[137] Additionally, since trade secrets are intangible, the Court stated that the existence of a property right depends on the extent to which the trade secret is protected from disclosure.[138] However, in spite of these references, American trade secret law is still a fusion of tort and unjust enrichment law[139] Nevertheless, it is worth noting that many authors still argue that trade secrets are intellectual property rights.[140]

These contrasting views of the doctrine demonstrate that, despite the problems discussed earlier in this thesis, US courts and legislators have been more willing to recognise information as property. In principle, however, the property paradigm

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[135] Ibid 457 ('If a man establishes a business and makes it valuable by his skill and attention, the good will of that business is recognized by the law as property.').

[136] Ibid 458.

[137] *Ruckelshaus v. Monsanto Co.,* 467 U.S. 986, 1002–03 (1984) (citing Locke's Second Treatise and other sources to support the finding that trade secrets can be property). See also Hill (n 131).

[138] *Ruckelshaus*, 467 U.S. 1002; see also *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 474–76 (1974) (noting the importance of secrecy to the value of trade secrets).

[139] See Hill (n 131). The legislation of trade secrets has been quite a recent phenomenon in the US. Before 1980, there was no legislation on this matter. The initial efforts to codify and harmonise trade secrets law was that of the Uniform Law Commission, which in 1979 adopted the uniform Trade Secrets Act. Following this important event, forty-seven states in total enacted civil statutes and over a half of these states also have specific criminal provision on trade secrets. In addition, in 1996, Congress passed a federal statute criminalizing trade secret misappropriation, Economic Espionage Act 18 U.S.C. 55 1831-39. See Uniform Trade Secrets Act, 14 U.L.A. § 529 (2005); D. S. Almeling et al, 'A Statistical Analysis of Trade Secret Litigation in State Courts` (2011) 46 *Gonz. L. Rev*. 57, 67-68.

[140] Lemley and Weiser (n 128).

cannot be used for all kinds of information and all cases because it relates to commercially valuable information mainly.

Palmer and Kohler do note that the information might be deemed to be property in the future, and it would provide the courts with an additional instrument.[141] At the moment, if information is recorded in a tangible form, then information can be vindicated using an action for trespass or conversion, i.e. property remedies. Thus there is a contradiction in not awarding protection when information is intangible.[142]

The Fairstar Case

The question of whether new, intangible information such as emails should be regarded as property arose in the recent English case, *Fairstar Heavy Transport N.V. v Adkins.* This section will examine the scenarios identified by the court in more detail. Justice Edwards-Stuart's analysis of property in emails illustrates five different scenarios: 1) the title remains with the creator; 2) the title passes to the recipient (analogous to a letter); 3) the recipient had a license to use the content of the email, 4) the sender has a license to retain the content and use it, and 5) the title is shared between the sender and the recipient, as well as any subsequent recipient.*[143]*

In each of these scenarios, Judge Edwards-Stuart focused on the unwanted consequences that would follow if the information in emails were to be recognised as property. Under the first scenario, (the *creator* of the email content retains property in it) he noted that the *in rem* nature of property [144] would entitle the sender to request deletion of the email. The judge pointed out that this 'would be very strange - and far-reaching.'[145] Under the second scenario (the *recipient* has the property right), he pointed out, similarly, that the recipient would instead be entitled to request deletion.

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[141] Kohler and Palmer (n 108) 206.

[142] Kohler and Palmer ibid 188.

[143] Ibid 61.

[144] The sender has a claim against the whole world.

[145] *Fairstar Heavy Transport N.V. v. Adkins*, [2012] EWHC (TCC) 2952, [64].

In addition to that 'strange outcome', he noted that further complications would arise if the email were forwarded to many recipients, who in turn might forward it to even more recipients. There, 'the question of who had the title in its contents at any one time would become hopelessly confused.'[146] Under the third and fourth scenarios, Justice Edwards-Stuart discussed the difference between cases of illegitimate use of information where the email was considered property, and one side was given a license to use it, and cases involving cases where there was a misuse of confidential information. He noted that the only difference is that if emails were considered property, it would not be necessary to show that the information was confidential. However, if the information was not confidential, he argued that there would be few situations where people would want to limit its use. Therefore, he concluded that 'there is no compelling need or logic for adopting either of options (3) or (4) and so in relation to these options I would reject a plea that the law is out of line with the state of technology in the 21st century.'[147]

Under the fifth scenario (shared proprietary interests in email contents), Justice Edwards-Stuart discussed several possible consequences of the loss of information in emails due to technology issues. He argued that, in such cases, the affected party could not gain access to the servers of the parties with whom he shared property in emails. He concluded that 'the ramifications would be considerable and, I would have thought, by no means beneficial.'[148] Accordingly, he found that emails are not to be considered property.[149]

Subsequently, the Court of Appeal has recognised the same conceptual difficulties that property in information would encounter, as those that Justice Edwards-Stuart identified.[150] However, the Court further asserted that this does not mean that there

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[146] Ibid 66.

[147] Ibid 67.

[148] Ibid 68.

[149] Ibid 69.

[150] 'The claim to property in intangible information presents obvious definitional difficulties, having regard to the criteria of certainty, exclusivity, control and assignability that normally

can never be property in any kind of information, as the inquiry depends on the quality of the information in question.[151] This would mean that information such as 'know-how' might be susceptible to property, as opposed to personal data.[152] Accordingly, the Court wisely avoided this discussion and decided that the real issue in the case was that of agency and that Mr Adkins, as a former agent of Fairstar, had a duty to allow Fairstar to inspect emails sent to or received by him and relating to its business.[153] In another, even more recent case, the Court of Appeal confirmed this long-standing position and, in relation to the customer data contained in a database, maintained restated that information is not regarded as property in English law.[154] Conversely, medium carrying the information is an object of property.[155]

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characterise property rights and distinguish them from personal rights.' *Fairstar Heavy Transport N.V. v. Adkins* [2013] EWCA (Civ) 886, [47].

[151] Ibid 48.

[152] Ibid.

[153] 'In my view, it is unfortunate that the agreed wording of the preliminary issue introduced an unnecessary complication into the dispute. The reference to a "proprietary right" was a distraction from the centrality of the agency relationship and its legal incidents. No competing claims of third parties are involved. Fairstar's claim is against Mr Adkins. The assertion of a right to inspect and copy the content of the emails on his computer relating to its business affairs arises from the legal incidents of an agency relationship that survive its termination. That question can be decided, as between those parties, without a jurisprudential debate about the legal characteristics of "property", or whether the content of the emails was "information" in which property existed in this case or could exist at all.' Ibid 46.

[154] 'An electronic database consists of structured information. Although information may give rise to intellectual property rights, such as database right and copyright, the law has been reluctant to treat information itself as property. When information is created and recorded there are sharp distinctions between the information itself, the physical medium on which the information is recorded and the rights to which the information gives rise. Whilst the physical medium and the rights are treated as property, the information itself has never been. As to this, see most recently per Lord Walker in *OBG Ltd v Allan* [2007] UKHL 21, [2008] 1 A.C. 1 at [275], where he is dealing with the appeal in *Douglas v Hello,* and the discussion of this topic in *Green and Randall, The Tort of Conversion* at pages 141-144.' *Your Response Ltd. v. Datateam Bus. Media Ltd*. [2014] EWCA (Civ) 281 [42] (Lord Justice Floyd).

[155] 'When information is created and recorded there are sharp distinctions between the information itself, the physical medium on which the information is recorded and the rights to which the information gives rise. Whilst the physical medium and the rights are treated as property, the information itself has never been.' Ibid.

In conclusion, it can generally be argued that English courts do not consider information property, whereas US law has done so more readily.

4.2.2.1.3. Theoretical Considerations of Property in Information

4.2.2.1.3.1. Features of Property and Information

The analysis in this section will consider whether the legal stances in the United Kingdom and the United States should be reconsidered in order to recognise property in information. The particular framework used to examine these stances is the most widely accepted conception of property in common law systems: the 'bundle of sticks' theory (see section 2.2.2). In the information context, this theory encompasses the following 'sticks': 1) the control of copying, 2) access, modification, use, and 3) disclosure of data and information.[156]

Providing for all the sticks in the bundle information context is usually a complex task, if possible at all, due to the characteristics that differentiate information from the traditional property. The basic differences between tangible and intangible property objects and rights are the following:

- Information is non-rivalrous, and therefore more than one individual can experience it at the same time[157]; This creates the

[156] See Nimmer and Krauthaus (n 82) 113.

[157] See J Boyle 'The Second Enclosure Movement and the Construction of the Public Domain` (2003) 66(1) Law & Contemp. Probs. 33, 41; R G Hammond 'Quantum Physics, Econometric Models and Property Rights to Information' (1981) 27 McGill L.J. 47, 54; M A Lemley 'Property, Intellectual Property, and Free Riding' (2005) 83 TEX. L. REV. 1031, 1032, 1059-1060.

problem of possession, as possession can be concurrent and cannot be transferred as in the case of tangible property;[158]

- Information is often non-separable, acting as a part of an individual right holder;[159]
- As opposed to most of the traditional property objects, copying information is easy and not very costly.[160] This adds to the difficulties with excluding others from using information;
- Information is often time-limited, erasable, and more fluid, while tangible property arguably has a quality of persistence and permanence;[161]
- Information is not easily excludable and therefore requires legal measures to mandate its excludability;[162]
- Information does not depreciate with use and some of it sometimes even gains additional value with use which is not the case with tangible property that devaluates with use;[163] and
- The abundance of information is inconsistent with the requirement of scarcity for the traditional property.[164]

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[158] See Nimmer and Krauthaus (n 82) 105.

[159] 'Separability' or 'thinghood', means that the things, in order to be property, must not be conceived as 'an aspect of ourselves or our ongoing personality-rich relationships to others.' J Penner, *The idea of property in law* (Clarendon Press; Oxford University Press, 1997) 126.

[160] *See* Hammond (n 158) 54. Usually, with the exception of highly confidential and protected information, where it could be considerably harder and costlier.

[161] Persistence is another quality of property objects, both tangible and intangible. It does not mean permanence; it only implies a certain degree of stability. T J Westbrook 'Owned: Finding a Place for Virtual World Property Rights' (2006) 3 Michigan State LR 779, 782-783.

[162] For more on excludability, see Boyle (n 158) 42. For Hammond, public goods are separated from private goods by a principle of exclusion and for information to have this feature, a considerable cost would need to occur. Hammond (n 158) 54.

[163] See Boyle (n 158) 44.

[164] See Hammond (n 158) 53.

Therefore, information incidents differ significantly from the incidents of traditional tangible property, identified in chapter 2 of this thesis. Therefore, it is difficult to apply the traditional property 'sticks' or incidents (such as use, control, exclusion, possession, destruction) to information. These arguments are, therefore, frequently used by the courts to deny information a status of property (as in *Fairstar* and other cases cited in the previous section).

4.2.2.1.3.2. Theories of Property as Justifications for Propertising Information

4.2.2.1.3.2.1. Labour Theory

Having indicated the conceptual difficulties originating from the different features of information and traditional property, this section will continue to explore the potential normative justification for property in information. This analysis will use the major western theories for justifying property, explored in chapter 2, to establish whether these arguments could be used for establishing property rights in information.

This discussion will borrow from the normative justifications for the recognition of intellectual property. The reason for this is that the same major property theories have been used to justify both intellectual property rights and propertisation. In addition to the same rationale, intellectual property variants of these theories are even better suited more suitable in the information context, given that intellectual property resources share many of the same features as information identified in the section above (they too are intangible, non-rivalrous, and non-permanent).

We will first look at labour theory and its applicability to justify the propertisation of information. Lockean arguments are widely used to justify property and intellectual property in common law systems.[165] According to Locke, a creator owns his person,

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[165] e.g. J Hughes 'The Philosophy of Intellectual Property` (1988) 77 Geo. L.J. 287; W Fisher, 'Theories of Intellectual Property' in S.R. Munzer, ed, *New essays in the legal and political theory of property* (Cambridge University Press, 2001) 168-201; S V Shiffrin 'Lockean Arguments for private Intellectual property' in Munzer ibid 138-168, 138-139.

he owns his labour, and inventions and intellectual creations are products of labour. Consequently, he owns his creations thus generated. However, when applying this to information generally, one encounters problems of labour and creation. Information may be simply facts, news, or other things that could not qualify as intellectual property and would not entail labour to be employed. Perhaps this is not true for certain types of information, such as trade secrets or fresh news.[166]

Further, apart from the questionable quality of labour for information generally, Locke's limitation on appropriation (for example, 'the enough and as good' and the spoilage provisos.)[167] must be considered. In the case of intellectual property, the 'enough and as good' proviso is likely to be satisfied since information as resources are not at least theoretically scarce (but if for instance, they were not monopolised, artificial scarcity would be created), and there is no risk of depletion.

Additionally, and again similar to intellectual property, [168] some information (knowledge, facts, ideas) is arguably so essential and influential to the public that appropriation would actually harm people.[169] Some information could be necessary for self-preservation and subsistence, as required by Locke; its appropriation would harm the welfare of others, and there would not be 'enough and as good' left for others in the commons if the access were to be limited by property rights. [170] This is particularly the case if propertisation would, as suggested by many prominent

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[166] See case law and discussion in the previous section.

[167] Macpherson 'Editor's introduction' in J Locke *Second treatise of government, Essay concerning the true original extent and end of civil government* (first published Crawford Brough 191; Indianapolis, Ind.: Hackett Pub. Co. 1980, with the preface by C. B Macpherson) XXI..

[168] W J Gordon 'A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property` (1993) 102 Yale L.J. 1533, 1540-78, 1567-1570.

[169]See Shiffrin (n 166).

[170] J Peterson 'Lockean property and literary works` (1995) 32 Hous. L. Rev. 385; 387-390, 399.

commentators, jeopardise free speech, expression, sharing of knowledge and keeping archives and accurate history records.[171]

For Locke's second proviso, the spoilage principle, intellectual property and information are less subject to waste due to spoilage, at least in the material sense. Furthermore, it is easier to isolate the value of human work than it is for real property, as there is no labouring on independent physical materials.[172] Other authors reject this as a sound explanation, noting that due to the non-rivalrous nature of intangible assets, unlimited production is possible and, consequently, there is a problem with spoilage when the creator is unable or unwilling to use all of these assets (creations) or convert them to money (which does not spoil).[173] In contrast, others claim that this is not necessarily correct, asserting that only the complete non-usage of works would qualify for this limitation. Otherwise, creations, even if used in a limited manner, would not spoil in the sense of the Lockean waste proviso.[174] Moreover, many argue that most information would be better shared, contemplated, discussed and developed.[175] Although these arguments apply to information, some types of information (for example, trade secrets or personal data) may lose their usefulness and function if not used in the right time and exploited properly a scenario that relates back to the tragedy of the commons arguments (see section 2.6.1.).

Another potential issue would be the commons, which is very difficult to define abstractly in the case of information. We could borrow from intellectual property theory and consider the commons equivalent to the IP public domain. However, this approach would encounter similar difficulties that the public domain faces. The main

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[171] See Lemley (n 158), Samuelson (n 87); Litman (n 91); Shiffrin (n 166); L. Lessig, *Code, version 2.0* (Basic Books, 2006) etc.

[172] 'The Lockean labour theory applies more easily because the common of ideas seems inexhaustible.' Hughes (n 166) 51. For a more detailed discussion, see Shiffrin (n 166) 140, 141, or G. S. Alexander and E. M. Peñalver *An Introduction to property theory* (Cambridge University Press 2012) 191-192.

[173] B G Damstedt 'Limiting Locke: A Natural Law Justification for the Fair Use Doctrine', (2003) 112 YALE L.J. 1179, 1182 – 1183.

[174] R P Merges, *Justifying intellectual property* (Harvard University Press 2011) 58.

[175] Shiffrin (n 166) 166–167.

objection is that the Lockean commons referred to the original appropriation in an earlier stage of societal development and to tangible assets only, thus being inapplicable to the public domain and, consequently, to the case of information commons.[176]

In summary, labour theory could be employed to justify property in certain kinds of information, where labour that could qualify as adequate for the purpose of labour theory (e.g. trade secrets) is present. However, general application to all kinds of information is unsuitable. First, there is a problem with the quality of labour deployed. It is doubtful that 'labouring on information' commons could be analogous with labouring on the tangible property resources in Lockean terms. There is also a problem with applying Locke's provisos ('enough and as good' and 'spoilage'), as propertisation of many types of information would not leave 'enough and as good' for others and would face issues of undesirable commodification of information. Further, propertisation would restrict the availability of resources for the further creation, may result in restriction of freedom of speech and autonomy, and jeopardise historical records and knowledge sharing. In addition, features of the commons are another problem. The commons in the case of intellectual property and information could be seen as the public domain, a concept very different from the Lockean notion of the commons in the initial stage of human development. Further, many would argue that 'labouring' on the public domain and appropriating resources from it would jeopardise further creation, innovation, development, and access to valuable resources. Finally, the commons is even more problematic in the case of personal data, as such data is, by definition, tied to an individual and does not belong to everyone. Accordingly, labour theory is even less applicable to personal data.

4.2.2.1.3.2.2. Utilitarian Case

This section will first explain the utilitarian theories used to justify intellectual property and will then draw parallels with applying the theory to propertising information. Inspired by Bentham, utilitarians and the neoclassical, law and economics school

[176] See Shiffrin ibid, see also Merges (n 175) 35–39.

argue that the main purpose of awarding intellectual property protection is incentivising innovation (see section 2.6.1. for a general overview of the theory).

Utilitarian theory often develops on the notion of free riding and the theory known as the 'tragedy of the commons.'[177] These arguments claim that treating all intellectual property as commons poses the threat of free riding. Free riding disables the owner from internalising the costs of investments in their creations and then recouping them in the market. Landes and Posner maintain that 'the nature of public goods renders them vulnerable for replication and use by free riders, thereby creating the risk of not recovering the production costs.' [178] If intellectual property protection were not awarded, those who did not create could still enjoy the benefits. The creators, on the other hand, would be unable to recover the investments, efforts and costs they incur in the process of creating and innovating.[179] According to the theory set forth by Demsetz, this phenomenon should be eliminated as it represents the negative externalities that should be internalised, as free riders obtain benefits from someone else's investment.[180] Thus, intellectual property protection according to Landes and Posner results in an increase in the production of socially valuable intellectual property.[181]

Landes and Posner, however, do recognise the need to strike a balance between public and private interests as the central problem of copyright law.[182] There, the most important indicator is the net welfare approach, which seeks 'the greatest good for the

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[177] H. Demsetz, 'Toward a Theory of Property Rights*'* (1967) 57 Am. Econ. Rev. 347, 347-359, or S Kieff, 'Property Rights and Property Rules for Commercializing Inventions', (2001) 85 Minn. L. Rev. 697, E W Kitch, 'The Law and Economics of Rights in Valuable Information' (1980) 9 J. Legal Stud. 683; W M Landes and R A Posner 'An Economic Analysis of Copyright Law' (1989) 18 J. Legal Stud. 325, 326.

[178] Landes and Posner, ibid.

[179] Ibid 353–354.

[180] For a commentary, see Lemley (n 158) 12.

[181] Ibid.

[182] Landes and Posner (n 178) 326.

greatest number.'[183] For example, in the context of copyright, this means that intellectual property rules should be geared to 'maximize the benefits from creating additional works minus both the losses from limiting access and the costs of administering copyright protection.'[184]

Lemley offers a sound critique to this theory, arguing that it is based on a 'fundamental misapplication of the economic framework set out by Harold Demsetz.'[185] He explains the difference between tangible property, which does confer negative externalities, and costs for owners and non-rivalrous resources.[186] Intellectual property, unlike tangible property, presents an issue of internalising positive externalities.[187] This is because consumption of creative outputs by many is desirable, as it enriches society and culture.[188] Lemley maintains that positive externalities are impossible to internalise and there is no reason to do that; therefore, if "if 'free riding' means merely obtaining a benefit from another's investment, the law does not, cannot, and should not prohibit it."[189] This stance is also supported by Alexander.[190]

Other opponents of this line of reasoning find that the goal of striking an appropriate balance between private and public in the copyright context cannot be entirely realised under utilitarian justifications.[191] The problem in these justifications for copyright, as Boyle or Zemer would argue, is that they emphasise the property

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[183] J Bentham, *An Introduction To The Principles Of Morals And Legislation* (first ed. 1789, J.H. Burns and H.L.A. Hart eds., Athlone Press 1970) 12-13.

[184] Landes and Posner (n 178) 184.

[185] Ibid 18.

[186] 'This is because real property tends to be a zero-sum environment — if I use a piece of land, you can't use it. If I overgraze a commons, that overgrazing imposes costs on anyone else who might use the commons.' Lemley (n 158) 2.

[187] This issue prevents the positive externalities to be enjoyed by the public. Ibid

[188] Ibid 56

[189] Ibid 24.

[190] See Alexander and Peñalver (n 173) 184.

[191] L Zemer 'On the value of copyright theory' (2006) I.P.Q. 1, 55-71; Lemley (n 158) 1066–1067.

component as a precondition for incentivising creation, thus disregarding the role of the public domain[192] or the self-interested motivation for creation without legal incentives.[193]

In addition, critics of this approach claim that it is not true that intellectual property protection is always necessary to recover the cost of innovation.[194] This claim mainly relates to patents, as they are understood to require the highest level of investment in relation to other intellectual property rights.[195] To support this argument, critics present the examples of innovations that are hard to copy or reverse engineer (e.g., integrated circuits and hardware protected by obfuscation techniques). In addition, some innovators recoup profits by keeping them secret or other inventors may distribute products in a way that is expensive to replicate (e.g. motion pictures on a film stock or encrypting data). Finally, in a constant circle of innovation, there is a phenomenon where first movers can recoup costs (e.g. the news, fashion, and trade secrets).[196]

Applying this theory to information, utilitarian arguments, especially the free riding concept, could be used to justify propertisation of some kinds of information (trade secrets, for example). Nevertheless, the notion of free riding is not applicable to all information and personal data and it cannot be used as an argument for propertising neither of these. The reason for this is that information and personal data, at least

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[192] J. Boyle, *Shamans, Software and Spleens: Law and the Construction of the Information Society* (Cambridge Mass., Harvard University Press, 1996) 244.

[193] S. V Shiffrin 'The Incentives Argument for Intellectual Property Protection` (2009) 4 J.L. Phil. & Culture 45, 49 (observing that there is no solid evidence and research in the direction that granting IP for a certain period of time is 'in fact necessary to incent creative production' and people do create even without these incentives).

[194] Ibid 51, 57.

[195] See Landes and Posner (n 178) 350.

[196] See Alexander and Peñalver (n 178) 188; Wesley M. Cohen, Richard R. Nelson and John P. Walsh, 'Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)' (Nat'l Bureau of Econ. Research, Working Paper No. 7552, 2000) 13.

those included in digital assets, do not require investments as IP usually does, and free riders, therefore, would not prevent anyone from recouping the non-existent investments. Also, the incentivising innovation and creation of information arguments might not work perfectly, especially in the cases of online, digital information where the phenomena of information overload are considered. Many authors argue that there is no need to incentivise information that is already over-produced.[197] It is also self-evident that incentivising production of personal data is unnecessary, as they have already been shared and used on a large scale online and digital assets contain a vast amount of them. Rather, there are generally more significant concerns over how to control and share less personal data online. In addition, all the utilitarian arguments face the same objections as intellectual property; that is, they should be non-rivalrous and, as is the case with information sharing and enriching culture in the intellectual property context, internalising positive externalities as should be avoided. Moreover, the tragedy of commons objection is not applicable either, especially to personal data, since there is no commons to start with and these are intrinsically related to a person. Utilitarian arguments are therefore weak justifications for the propertisation of information.

4.2.2.1.3.2.3. Personhood Theories

Personhood theories of personal and intellectual property represent a strong alternative to the previous theories (see section 2.6.3. for a general overview). They emphasise a personal, non-pecuniary version of intellectual property, concluding that intellectual creation is an expression of one's self.[198] Discussing whether ideas and creations can be considered things and property, Hegel notes that they can be contracted, but they are something inward and mental. Thus, it is hard to describe

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[197] See M J Eppler and J Mengis 'The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines' (2004) 20(5) The Information Society. An International Journal 325; M S Oppenheimer, 'Cybertrash' (2011-2012) 90 Or. L. Rev. 1; T A Peredes 'Blinded by the Light: Information Overload and Its Consequences for Securities Regulation' (2003) 81(25) Washington U. L.Q. 417.

[198] *See* Hughes (n 166) 330 ('An idea belongs to its creator because the idea is a manifestation of the creator's personality or self.').

such a possession in legal terms 'because its field of vision is as limited to the dilemma that this is 'either a thing or not a thing' as to the dilemma "either finite or infinite."'[199] Further, Hegel notes that even though things such as talents and accomplishments, are internal and are owned by the mind. Hegel concludes that 'by expressing them it may embody them and this way they are put in the category of "things."'[200] Hughes finds this theory appealing, noting that "the Hegelian personality theory applies more easily because intellectual products, even the most technical, seem to result from the individual's mental processes."[201]

As noted in chapter 2, one of the most prominent contemporary theories based on Hegelian arguments is Radin's personhood theory. There, Radin divides property into fungible and personal categories and asserts that 'the more closely connected with personhood, the stronger the entitlement.'[202] Therefore, according to this theory, there are powerful grounds for strong intellectual property protection. The problem here, however, is whether this theory justifies alienability of creative works or limits it. Fisher, for instance, wonders if an author can restrict further communication of her work, once she has revealed it and whether it 'nevertheless continues to fall within the zone of her "personhood".'[203] Netanel replies that 'authors in fact have a strong interest in continuing sovereignty over their expression.'[204] Weinreb, conversely, maintains that the expression, after having been communicated, takes a life of its own and would 'come down to an economic interest, the author herself commodifying what was declared uncommodifiable.'[205] Similar objection could be applied to personal data in particular. Thus, even though personal data are intrinsically tied to a person,

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[199] G W F Hegel, *The Philosophy of Right* (first published 1821, translated by Knox, Oxford University Press, 1967).

[200] Ibid.

[201] Hughes (n 166) 365.

[202] M J Radin, 'Property and Personhood' (1982) 34 STAN. L. REV. 957, 986.

[203] W Fisher, "Theories of Intellectual Property" in Munzer (n 166) 190.

[204] See N W Netanel, 'Copyright Alienability Restrictions and the Enhancement of Author Autonomy: A Normative Evaluation' (1993) 24 Rutgers L. J. 347, 400.

[205] L Weinreb, 'Copyright for Functional Expression' (1998) 111 Harv. L. Rev.1149, 1222.

propertisation even in the form of personal property might not be the nest solution, as it would commodify these data and disable users' control over them (similarly, see section 4.2.2.1.1.).

Other critics note that Hegel's theory lacks a romantic view of a creator and, under this theory, intellectual property is just like other species of property in that it is strictly formal and abstract.[206] Furthermore, according to Schroeder and Alexander, Hegel says nothing about whether intellectual property should be protected. Hegel, they assert, just claims that, if society adopts such a regime, it is coherent to formulate it in terms of true property, rather than some *sui generis* rights.[207]

Personhood theory applies to information to an extent. However, because of their non-personal, commercial character, some kinds of information (such as trade secrets and fresh news) cannot be justified under this theory. In contrast, other information (such as personal data that is intrinsically tied to an individual) can perhaps find better support under this approach. However, this suggestion is not free from problems either, and as identified above, can lead to the commodification of information and personal data.

In summary, even if the normative obstacles were overcome and either the labour or personhood theories were to be applied, propertisation would further face the problem of the undesirable commodification and monopolisation of information and personal data. There, property would not provide any desirable protections and would arguably jeopardise free speech.[208]

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[206] See Alexander and Peñalver (n 178) 199.

[207] Ibid 189.

[208] See J B Baron, 'Property as Control: The Case of Information' (2012) 18 Mich. Telecomm.. & Tech. L. Rev. 367, 397–399; Radin (n 203); A Rahmatian, Copyright and Commodification, (2005) 27(10) Eur. Intell. Prop. Rev. 371, 371–378; C May 'Between Commodification and 'Openness': The Information Society and the Ownership of Knowledge' 2005 J. INFO. L. & TECH. 2.

4.2.2.1.2. Analysis

In addition to the doctrinal difficulties with the propertising of information, there are also important normative obstacles. The biggest objection to applying utilitarian theory to information is the lack of a need to incentivize the creation of information. In addition, the case of free riding is not generally applicable, as it is hardly imaginable that there could be free riding in the context of the non-copyrightable content. The complications with labour theory lie in the lack of labour that could be considered comparable to Locke's Lockean labour theory. Additionally, a lack of initial commons and the inapplicability of Lockean provisos create further obstacles. For the personhood theory, the personal nature of personal data prevents commodification and propertising since propertising of the information content would, therefore, be undesirable. Further, even if we these obstacles could be overcome and labour or personhood theories could be applied, propertisation would further face the problem of undesirable commodification and monopolisation of information, an outcome that would produce only undesirable protections.

Therefore, in order to properly maintain and reinforce the balances of human rights (the right to privacy and freedom of expression) with the public interest (maintaining the public domain and the sharing and access of knowledge and accurate historical records), it is suggested that the current conceptual framework, while confusing and imperfect, is more nuanced than a hypothetical property in information framework. This, however, does not mean that the current framework does not need calibrating. There is certainly potential for improvements. However, suggesting a reconceptualised framework for protecting information and personal data is outside of the scope of this thesis.

In summary, therefore, the non-copyrightable content of emails, information and personal data, is not (doctrinal argument) and should not (normative argument) be considered property. Rather, other safeguards established for information and personal data should be utilised to protect emails (breach of confidence, trade secrets, data protection). This, tentatively, means that the non-proprietary character of emails to a large extent precludes their post-mortem transmission (see section 2.5.). Further analysis in this chapter will demonstrate problems with this one-size-fits-all conclusion.

4.3. Allocation of ownership in emails

This section will analyse the allocation of ownership/property/copyright (these terms are to be taken provisionally, and they reflect how the providers refer to the users' content and not the analysis above, which concluded differently) and access to the user email contents as established by the service provider contracts. After having discussed the question of whether emails are property, this section will aim to answer the question of who gets these property rights/copyright according to the contracts the users conclude before starting to use emails. The allocation and access are important as they prevent or, rarely, allow the deceased users' personal representatives/next-of-kin access to the content.

Unlike the previous case study (the Virtual Worlds), where the providers refuse to recognise any right in the users' content (see section 3.4.), the question of ownership of the content users 'upload, submit, store, send or receive' is much clearer in this case study. Service providers do recognise users' ownership of their content, and they claim a worldwide, royalty-free and non-exclusive license to use and perform other actions with the content. This is in principle valid for all three leading service providers analysed in this chapter (see section 4.1.).[209] There are some minor differences, however. When stating ownership, Google refers to all content, whereas Microsoft mentions email explicitly, as content that users own.[210] The further difference is that the Google and Microsoft ToS apply to all content, whereas in Yahoo's ToS, for instance, the corresponding provision and the licence apply only to 'photos, graphics, audio or video'.[211] For all the other content the users 'submit or

[209]Google 'Terms of Service', (Last modified: 14 April 2014) http://www.google.com/intl/en-GB/policies/terms/ accessed 15 May 2016; Yahoo! Terms of service at https://info.yahoo.com/legal/eu/yahoo/utos/en-gb/ accessed 15 May 2016.

[210] 'Content includes anything you upload to, store on, or transmit through the services, such as data, documents, photos, video, music, email and instant messages ("content").' Microsoft Service Agreement, Outlook 3.1. http://windows.microsoft.com/en-gb/windows-live/microsoft-services-agreement accessed 15 May 2016.

[211] Yahoo! Terms (n 210) para 9.2.

make available for inclusion on publicly accessible areas of the Yahoo Services',[212] Yahoo retains 'the worldwide, royalty-free, non-exclusive, perpetual, irrevocable, and fully sub-licensable licence'.[213] Emails do not seem to belong to any of the categories, and the only provision applicable is the general one, where users retain ownership over the content generally, and notwithstanding the discussion about information and personal data in the previous section, this is misleading as well. It is potentially applicable to the copyrightable content only (see section 4.2.1.).

The issue appears clear: the content is copyrightable if it fulfils requirements and/or it can also be protected by the tort of misuse of confidential information, trade secrets, data protection, publicity rights, depending on the qualities of the actual content and it is 'owned' by the users according to the ToSs. The account, however, is not property of an individual. He has a right to use it by contract but does not have a right to transfer it,[214] and the account remains the property of the service provider.[215] It could be argued that the username and/or password could also be owned by an individual (like

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[212] Ibid.

[213] Ibid para 8.

[214] Microsoft Service Agreement (n 211) '18. Assignment and transfer. We may assign this agreement, in whole or in part, at any time without notice to you. You may not assign this agreement or transfer any rights to use the services.' and '21. No third-party beneficiaries. This agreement is solely for your and our benefit. It isn't for the benefit of any other person, except for Microsoft's successors and assigns.'

[215] See Google's terms (n 209) 'Using our Services does not give you ownership of any intellectual property rights in our Services or the content you access. You may not use content from our Services unless you obtain permission from its owner or are otherwise permitted by law. These terms do not grant you the right to use any branding or logos used in our Services. Don't remove, obscure, or alter any legal notices displayed in or along with our Services.'; or Microsoft (n 211) '3.1. Who owns the content that I put on the services? Content includes anything you upload to, store on, or transmit through the services, such as data, documents, photos, video, music, email, and instant messages ("content"). Except for material that we license to you that may be incorporated into your own content (such as clip art), we do not claim ownership of the content you provide on the services. Your content remains your content, and you are responsible for it. We do not control, verify, pay for, or endorse the content that you and others make available on the services.'. Similarly see J Lamm 'Planning Ahead for Access to Contents of a Decedent's Online Accounts' (*Digital Passing Blog* 9 February 2012) http://www.digitalpassing.com/2012/02/09/planning-ahead-access-contents-decedent-online-accounts/ accessed 15 May 2016.

a key to one's property, an accessory), but an actual underlying system that enables the functioning of the account is intellectual property of the service provider. In summary, it is unclear what these terms describe, but it is probably access to emails and their retention on the service providers' servers.

Even if we set aside the difficulties in proclaiming intangible objects as property, the fact here is that a service provider owns the account and email servers and the user only uses these facilities, under terms and conditions. Therefore, the accounts cannot be transferred as they are not owned by the sender of an email in the first place.[216]

4.3.1. Intermediary contracts and transmission of emails on death

The current ToS of the leading webmail providers offer different and contradictory options for the transmission of emails on death. This section will canvas the policies relating to deceased users of the major email providers, chosen as case studies in this chapter (see section 3.1.).

Yahoo!, as seen in the case of Ellsworth, refuse to pass on logins and passwords to accounts to heirs and even the content of the messages. [217] In their deceased user policy, they expressly refer to privacy of the deceased and the non-transferable nature of the account ('Pursuant to the TOS, neither the Yahoo account nor any of the content therein are transferable, even when the account owner is deceased.').[218] A personal representative or an executor can only request for an account to be closed,

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[216] In accordance with the legal principle of *nemo dat, see Henderson & Co v Williams* [1895] 1 QB 521; *Shaw v Commissioner of Metropolitan Police* [1987] 1 WLR 1332, *Farquharson Bros v C King & Co Ltd [1902] AC 325, Mercantile Bank of India Ltd v Central Bank of India* [1938] AC 287*, upholding Farquharson; Central Newbury Car Auctions Ltd v Unity Finance Ltd* [1957] 1 QB 371.

[217] See discussion above of Yahoo!'s terms of service (n 210) and the *Ellsworth* case. Yahoo!, Help, 'Options available when a Yahoo Account owner passes away' https://help.yahoo.com/kb/mobile/SLN9112.html?impressions=true accessed 15 May 2016.

[218] Ibid.

billing and premium services suspended, and 'any contents permanently deleted for privacy.'[219]

Google permit passing on the contents of a Gmail account to the deceased's heirs but only in exceptional circumstances[220]. Google are explicit about protecting privacy of the deceased, mentioning this at multiple occasions in the relevant section on their help page.[221] However, in addition to this general policy, Google has recently launched a pioneering 'code' solution for post-mortem transmission of emails and some other services. The 'Inactive Account Manager' (IAM) introduced in April 2013 enables users to share 'parts of their account data or to notify someone if they've been inactive for a certain period of time'.[222] According to the procedure, the user can nominate trusted contacts to receive data if the user has been inactive for the time chosen by him (3 to 18 months). The trusted contacts are after their identity has been verified,[223] entitled to download data the user left them. The user can also decide only to notify these contacts of the inactivity and to have all his data deleted. There is a link directly from the user's account settings (data tools section) to the IAM.

A fundamental problem with IAM is verification of trusted contacts. Text messages are sent to trusted contacts (mandatory), and in addition, the user can choose to be notified of his timeout by email. This could prove problematic as the phone number is

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[219] Ibid.

[220] 'If an individual has passed away and you need access to the contents of his or her email account, in rare cases we may be able to provide the Gmail account content to an authorized representative of the deceased user. We extend our condolences and appreciate your patience and understanding throughout this process.' Google 'Submit a request regarding a deceased user's account' https://support.google.com/accounts/contact/deceased?hl=en&ref_topic=3075532&rd=1 accessed 15 May 2016.

[221] Ibid.

[222] Google, Account Help, 'Inactive Account Manager for trusted contacts' https://support.google.com/accounts/answer/3036514?hl=en accessed 15 May 2016.

[223] 'Once you click the link, we'll need to verify your identity before you download the data. You'll need to enter in a code, which you can choose to receive via SMS or voice call. After verification, you can download the data, which will be downloaded as a separate file for each product that's been shared with you.' ibid

not an official way of proving identity. Furthermore, people tend to change their mobile phone providers and numbers, and some of them may never be able to get notified, and the user's wish will not be honoured in these cases. This problem has been recognised by Google, too, but the company considers the two-factor authentication suitable for the time being before better ways of identification are employed (identify tokens, fingerprint identification, etc.).[224]

A second problem is a transfer of content via IAM to trusted contacts, which would provide for different beneficiaries than the offline ones. It would, perhaps, include friends and digital community that would not be considered in an offline distribution of property. This further leads us to the connected problem of conflicts between the interests of the deceased (expressed in his digital will, or traditional will), family (as his heirs) and friends (with whom the deceased might have firmer ties online than those with his heirs offline, as research suggests).[225] This issue becomes more complex in the different jurisdictions where Google's users are based worldwide. Google, however, consider themselves bound primarily by the Californian probate law in this and other similar cases (e.g. requesting the US court order in the access procedure described earlier).[226] This is understandable to an extent, especially as the service had been designed and developed initially by the developers and *techies* (staff working on the development of technology mainly), without major input from the legal and policy departments.[227] These inputs came later, and Google is still contemplating the viability and scalability of the service. Google argue that the legislation should be technologically neutral, allowing for the development of similar technologies that could tackle the post-mortem issues appropriately.[228] Overall, this could be welcomed as a good development that respects autonomy and allows users much more control over what happens to their data on death. This is especially important as Google stores an

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[224] Interview transcript, Google employee, on file with the author (see chapter 1 section 1.4.).

[225] See E Kasket, 'Access to the Digital Self in Life and Death: Privacy in the Context of Posthumously Persistent Facebook Profiles' (2013) 10 SCRIPTed 7.

[226] Ibid .

[227] Interview (n 225).

[228] Ibid.

enormous amount of user's data, with all the services it provides (Gmail, Youtube, Google+, Google Drive, Photos, etc.).

Microsoft, in line with the other providers, offers no rights of login or access to the representatives of deceased users.[229] Their 'Next of Kin Process' provides for the release of Outlook.com contents (all emails and their attachments, address book, and Messenger contact list) to the next of kin of a deceased or incapacitated user and/or closure of the Microsoft account. Microsoft refuse to provide the next of kin with the password and to transfer ownership of the account to the next of kin. Rather, they offer to release the content by way of a data DVD which is shipped to the next of kin.[230]

4.3.2. Analysis

First, the above discussion has demonstrated that email service providers expressly recognise users' ownership of their email content. The service providers claim a worldwide, royalty-free and non-exclusive licence to use and perform other actions with the content.

Second, among email service providers, a norm has emerged of allowing discretionary access for heirs to content in the accounts of deceased users, but no formal property right is recognised or transmitted (see section 4.3.1.). There is usually an express prohibition of transfer of account login details and the account itself. This is inconsistent with the declaratory recognition of users' ownership. Google provides, exceptionally, for users' control over their content post-mortem with the IAM. *Prima facie*, the prohibition on accessing the deceased user's account is not an issue, as the license to use the account ends with the user's death, and clearly, the account owner (the service provider) could stop others from accessing it. Nevertheless, this is

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[229] See n 98 in Mazzone (n 73).

[230] Microsoft, Community, 'My family member died recently/ is in coma, what do I need to do to access their Microsoft account?' (*Ael_G. asked* on March 15, 2012) http://answers.microsoft.com/en-us/outlook_com/forum/oaccount-omyinfo/my-family-member-died-recently-is-in-coma-what-do/308cedce-5444-4185-82e8-0623ecc1d3d6 accessed 15 May 2016.

contradicting the service providers' explicit provisions on users owning their content, because this ownership excludes transmission on death, which is one of the main features of property and ownership (see section 2.2.).

Third, none of the providers allows access to the whole account itself, invoking the privacy protection and the Stored Communications Act. The act, however, does not prevent disclosure in the cases when there is consent from the user or if they wish to disclose the data voluntarily.[231] This is the argument used by Google to justify their approach in IAM. In addition, a court might order access to the account, as attempted in *Elsworth*.

4.4. Post-mortem privacy

An important phenomenon that arises from considering the transmission of emails (and in the subsequent chapter, social networks) is post-mortem privacy. It will be discussed herein because it is one of the features affecting rules on the transmission of assets on death. As seen in the previous section, service providers refer to PMP (without using the term itself), when refusing to transfer a deceased's account. In addition, as argued in chapter 2 (see section 2.8.), this notion deserves legal recognition beyond the piecemeal and patched approach, which is dominant at the moment. The theoretical and doctrinal analysis from chapter 2 applies to this chapter and chapter 5. The discussion on PMP has not been included in chapter 3, though, for the reason that sharing and storing of personal data, currently, is not a predominant feature in VWs, as it is in emails and social networks.

In relation to the main topic of this chapter, PMP serves as a basis for arguing against the general transmission of emails on death without the deceased's consent, i.e. by default, through the laws of intestacy or by requiring the intermediaries to provide access to the deceased's emails. PMP is recognised explicitly in the court's decision in the case of Ellsworth and the service providers' ToS (see section 4.3.1.). Therefore,

[231] See 18 U.S. Code § 2701 - Unlawful access to stored communications; § 2702 - Voluntary disclosure of customer communications or records.

recognition of PMP questions the default position of using transmission by way of the laws of succession for some kinds of digital assets (those containing a vast amount of personal data, such as emails and social networks).

Rather than using the current offline defaults, it is argued here that more nuanced solutions for the transmission of emails are needed. These solutions will be explored in the following section and would aim to account for the privacy interest of the deceased, thus upholding the user's autonomy and expression of their wishes regarding what happens to their emails after their death. These interests, although not prioritised currently, should be considered when suggesting solutions for the transmission of digital assets in general. This proposition is in line with the animating principle of this thesis, autonomy, which should be extended on death in the form of PMP, analogous to its extension in the form of testamentary freedom (see further under section 2.8.).

In the case of emails, which consist predominantly of personal data, this thesis recommends protecting autonomy and privacy by setting up and recognising legally the in-service options for the protection of PMP (e.g. Inactive Account Manager). Theories of autonomy discussed under section 2.7.1. support the in-service solutions. Autonomy, or free will, here practically translates into privacy interests (see section 2.7.2.), and the user's control of what happens to their personal data contained in their email accounts. These privacy interests should be extended post-mortem, analogous to the post-mortem extension of autonomy reflected in respect for testamentary freedom. For emails, such an extension could be achieved via the use of technological, in-service solutions, which would be recognised by the law of succession (e.g. Inactive Account Manager, see the section below). This way, the effect could be given to the autonomous wishes expressed by a user of the technology, enabling the protection of the user's PMP. The following section explains how this would be technologically-viable, and how the law could give effect to it.

4.5. Solutions for transmission of emails on death

The last section will offer some tentative solutions in relation to transmission of emails on death. More general, albeit provisional, solutions will be offered in the last chapter, Conclusion.

As noted in the previous section, email accounts (like social networks, see section 5.1.) contain much more personal data and information relating to the deceased than could be imaginable offline in the case of letters, for instance. Users' online lives are stored and controlled by services providers (as seen in section 4.3.1.) and it is argued here that any solution should shift the control to users. The old rules of succession, aiming to account for individuals' wishes, but also balancing these interests with the interests of their heirs are not applicable *per se*, mainly because of the highly personal and individualistic nature of these digital assets.

Some of the US states have been the most active jurisdictions in legislating to transmission of digital assets on death issues. In addition, the US Uniform Law Commission formed the Committee on Fiduciary Access to Digital Assets to come up with the Fiduciary Access to Digital Assets Act.[232] The provisions of the state law and the ULC Act will be evaluated more in the concluding chapter. The reason for this is that they apply to digital assets in general, so the chapter discussing the comprehensive technology and law solutions is a better place for this analysis.

It is argued here that the best solution to the problems identified in this chapter is to respect and foster the user's autonomy and create technological solutions that would implement this endeavour. The solutions could resemble Google's IAM, but there is also a scope for further technological and policy innovation. In addition, adequate legislation is a necessary precondition for this, aiming to neutralise the potential conflicts between the laws and the code solutions. In this respect, the US Uniform Law Commission work is a good start, but as noted further in the Conclusion, the

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[232] At the US National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (July 2014) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADAA_Final.pdf accessed 15 May 2016.

outcome of this work is still uncertain, and its influence would be significant only if the provisions of the Uniform Act are adopted as laws of the individual states. At the UK level, there is also a need for legislation, which would recognise these services and remove the obstacles for transmission created by copyright law.

In addition, the ideal solution, along with the probate reforms, would recognise PMP and protect the deceased's personal data. In Europe, this can be done at the EU level, by envisaging protection of the deceased's personal data in the upcoming data protection reform.[233] This protection could be time-limited (e.g. 70 years post-mortem like copyright) and again, recognise the user's autonomy and premortem choice (e.g. by mandating the service providers to require the choice to be expressed during the registration process, or at some other appropriate occasion).

4.6. Conclusions

First, this chapter has established that the non-copyrightable content of emails, information and personal data, is not (doctrinal argument) and should not (normative argument) be considered property. This means that the non-proprietary character of emails to a considerable extent precludes post-mortem transmission.

Second, a large, and unidentified, proportion of email contents that would satisfy copyright requirements potentially transmit on death as unpublished works protected by copyright. The problem with copyright is that not all the emails would meet the requirement of originality, and consequently, we would have a regulatory vacuum for a sizeable number of emails. For the content that would meet this requirement, the problem is that terms and conditions and PMP might clash with the default transmission as the heirs might decide to publish something that was not intended to be disclosed by the deceased and is highly personal. This may eventually result in the issue of limiting the deceased's autonomy, usually respected for the offline assets (through testamentary freedom). A further problem is legislation. UK law limits

[233] See Recital 27, Regulation (EU) 2016/679 Of The European Parliament And Of The Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), O.J. EU L 119/1.

transmission of unpublished content that is not embodied on a physical medium, and which is published unlawfully (here, contrary to the ToS).

Third, email service providers allow discretionary access for heirs to content in the accounts of deceased users. No formal property right is recognised or transmitted, and there is usually an express prohibition of transfer of account login details and the account itself. This is inconsistent with the declaratory recognition of users' ownership. That is not to say that the content ownership should extend to the providers' software and the accounts, but only that the alleged ownership is limited and it excludes transmission on death. Google provides, exceptionally, for 'users control over their content post-mortem with the IAM. The IAM is not free from problems, however, and the chapter has discussed some of them too (identification, conflicts with succession laws).

Fourth, the chapter adopts a novel approach and uses PMP as an argument against the default transmission of emails on death without the deceased's consent, through the laws of intestacy or by requiring the intermediaries to provide access to the deceased's emails. In the absence of the user's will and in order to protect the deceased's privacy, the default should be the deletion of data.

In summary, this chapter demonstrates that there is a conflict between laws, norms and the market. Laws state that emails are not property unless copyright can protect their content. There is a normative appeal to PMP, but the market and another set of norms support different suggestions (the market is contradictory when attempting to protect PMP and at the same time respecting the wishes of families/heirs).

This chapter, tentatively, proposes a combined law-technology-policy solution. The solution would require legislative and policy interventions in the probate and data protection areas. It would recognise and envisage technology solutions, ideally, in a neutral way; and to account for PMP, it would promote a user's autonomy and the choice of what happens to their emails on death. The concluding chapter will discuss and consolidate the solutions offered in case studies in more detail.

Chapter 5 - Social networks

5.1. Conceptualisation and brief history of social networks

Social network sites (hereinafter: SNS) can be defined as 'web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.'[1] boyd and Ellison use the term 'social network site' as opposed to the term 'social networking sites' that is often considered its synonym. They argue that these terms are different in that 'networking' emphasises relationship initiation, often between strangers, which is not the primary purpose of social network sites, 'nor is it what differentiates them from other forms of computer-mediated communication (CMC).'[2] Rather, social networks are primarily used to maintain and continue existing, offline relationships between their users.[3] Grimmelmann, in his comprehensive study on Facebook, accepts this definition and adds the feature of 'explicitness', noting that social networks are 'the *explicit representation* of connections among users.'[4] These connections and interactions, according to Grimmelmann, have three most important aspects: identity (they enable users to create and build their identities, so they are 'as much performative as informative') [5] relationship (initiating and maintaining

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[1] d boyd and N B Ellison 'Social Network Sites: Definition, History, and Scholarship' (2007) 13.1 J Comput Mediat Commun. 210, 1.

[2] Ibid 2.

[3] J Grimmelmann 'Saving Facebook' (2009) 94 Iowa L. Rev. 1137, 1154; d boyd, 'Why Youth (Heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life' *in D Buckingham ed, Youth, Identity, And Digital Media* (2009) 119-129 http://www.mitpressjournals.org/doi/pdf/10.1162/dmal.9780262524834.119 accessed 15 May 2016, 126.

[4] Grimmelmann ibid 1143.

[5] Ibid 1153.

relationships with friends/contacts/followers through different forms of interaction) and community (building new and extending offline communities, with distinct norms, values, behaviours).[6] Regarding the relationship aspect, research finds significant social impact social networks have, including their use to keep social ties, revive 'dormant' relationships, avoid social isolation, etc.[7]

Another important aspect of social network sites is that they facilitate posting and sharing of user-generated content (UGC), discussed in chapter 1 (section 1.3.1.). The individual terms in the UGC phrase take the following meanings: User – a computer or Internet user and amateurs; Generated – created by these users, including a degree of creativity, something not merely uploaded or copied; Content – digital content, the content available online.[8] White, for example, when defining UGC notes that **'**Blogs, wikis, social-networking sites and video-sharing sites (for example, YouTube) are among the most popular UGC technologies'.[9] From a technological point of view, the code behind social networks is termed by Shirky as 'social software' i.e. 'software that supports group communications.'[10]

Notwithstanding the common features, social networks are very different in terms of their purpose and content posted/shared/created therein. Some of them are primarily used for various social interactions with friends, families and others, facilitating exchange of various kind of content, such as text, photos, personal data, videos, games, etc. (Facebook); others focus on the exchange of photos and videos (YouTube, Instagram, Flickr, etc.); some focus on professional interactions (e.g.

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[6] Ibid.

[7] See Pew Research, 'Social Networking Fact Sheet' at http://www.pewinternet.org/fact-sheets/social-networking-fact-sheet/ accessed 15 May 2016.

[8] S Hetcher. 'User-Generated Content and the Future of Copyright: Part One, Investiture of Ownership' (2008) 24 Santa Clara Computer & High Tech. L.J. 829, 870-873.

[9] E White 'The Berne Convention's Flexible Fixation Requirement: A Problematic Provision for User-Generated Content' (2012-2013) 13 Chi. J. Int'l L. 685, 691.

[10] C Shirky, 'Social Software and the Politics of Groups' (9 March 2009 N*etworks, Econ., & Culture Mailing List*) http://www.shirky.com/writings/group_politics.html accessed 15 May 2016. Other kinds of social software include blogs, wikis, and media-sharing sites, like Flickr and YouTube.

LinkedIn); some are music oriented (Spotify, LastFM, MySpace, etc.). All this content can have very diverse legal nature, and nature depends, *inter alia,* on the different relationships and options available within intermediaries that facilitate social interactions there.

Essentially, therefore, social network sites are online platforms that enable and facilitate communication, sharing and other types of interaction between their users. Communications and sharing are the major features looked at in this thesis, through the lenses of different legal concepts (intellectual property, data protection, property, contracts). These interactions trigger analysis of whether traditional legal concepts apply to SNSs.

The history of social networks started in the early days of the World Wide Web (WWW). According to boyd and Ellison, the first social network site that meets the requirements of the above definition was launched in 1997, i.e. SixDegrees.com. This SNS allowed users to create profiles, list their friends and surf the friend's lists. As noted by the researchers, these features individually existed before SixDegrees, but this site was first to combine them all and allow users to create profiles and list friends. The site became unprofitable and closed in 2000.[11] The next wave involved businesses and helped them 'leverage their business networks'.[12] These sites included Ryze, Tribe.net, LinkedIn, and Friendster, out of which only LinkedIn still operates.[13] From 2003 onward, many new SNSs were launched, bringing these sites to mainstream. The most important ones are MySpace (launched in 2003 with the main focus on bands and music, expanding later and eventually losing in popularity with the emergence of Facebook and Twitter), Facebook (launched in 2004 as a Harvard-only service, and beginning its global expansion in 2005), and Twitter

[11] boyd (n 1) 214.

[12] Ibid 215.

[13] Ibid.

(launched in 2007, as initially network mainly used in the US, which took off globally in 2009).[14]

The popularity of social networks in the western world nowadays is tremendous.[15] The UK Office for National Statistics finds that in 2014 54% of all adults participated in social networking (including 91% of adults aged 16 to 24, 37% of adults aged 55 to 64 and 13% of those aged 65 and over).[16] Also, social networks are the fourth most popular online activity in total, after emails, finding information about goods and services, and reading news or online magazines.[17] This usage has grown steadily in the UK, starting from 45% in 2007 to 54% of the UK Internet users. The data is even more telling in the US. According to Pew Research, 74% of online adults in the US use social networks (adults aged 18-29, 89% use social networking sites; 65% of those aged 50-64, and 49% of adults aged 65+ use social networking sites).[18] In addition, starting from 8% in 2005, the usage of social networks has grown to 74% of the US Internet users in 2014.[19]

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[14] Ibid 214-219 and V Barash and S Golder 'Twitter: Conversation, Entertainment and Information, All in One Network!' in D Hansen, B Shneiderman and M Smith, eds, *Analyzing Social Media Networks with NodeXL: Insights from a Connected World*, (Morgan Kaufmann Publishers 2010).

[15] This is not to say that the popularity is not similar in the other parts of the world. See e.g. Statista, 'Leading social networking sites in Asia in March 2013, by country and based on number of registered users (in millions)' http://www.statista.com/statistics/224746/leading-social-network-sites-in-asian-countries/ accessed 15 May 2016.

[16] See Office for National Statistics, 'Internet Access – Households and Individuals 2014' (8 August 2013) http://www.ons.gov.uk/ons/dcp171778_322713.pdf accessed 15 May 2016, 6. The focus of this thesis is on the western social networks, in accordance with the methodology adopted.

[17] Ibid Table 10, 36.

[18] See Pew Research, 'Social Media Use by Age Group Over Time' http://www.pewinternet.org/data-trend/social-media/social-media-use-by-age-group/ accessed 15 May 2016.

[19] See Pew Research, 'Social Media Use Over Time' http://www.pewinternet.org/data-trend/social-media/social-media-use-all-users/ accessed 15 May 2016.

The focus of this chapter is on the most widely used social networks in the western world, Facebook and Twitter. These SNSs have the largest user base and their social and cultural importance for users is invaluable. They are primary platforms used to share user-generated content worldwide.[20] With regard to the user base, Facebook's growth has been enormous, with the increase from 100 million users in 2008 to 1.350 million in 2014.[21] Twitter has grown from 30 million users in 2010 to 284 million in 2014.[22] In 2013, Facebook had about 30 million users in the UK and about 147 million users in the US.[23] Twitter reports that 77% of user accounts are outside the US.[24]

Facebook is an open social network, and anyone with an email address and claiming to be thirteen or older can join.[25] Facebook offers different tools for users to search and add potential friends.[26] A user's profile page has a 'Timeline' where other users can post messages (so-called 'status updates'), photos, videos and other content

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[20] Statista, 'Primary social network used to share content worldwide as of 3rd quarter 2013' http://www.statista.com/statistics/283889/content-sharing-primary-social-networks-worldwide/ accessed 15 May 2016.

[21] Statista, 'Number of monthly active Facebook users worldwide from 3rd quarter 2008 to 3rd quarter 2014 (in millions)' http://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/ accessed 15 May 2016.

[22] Statista, 'Number of monthly active Twitter users worldwide from 1st quarter 2010 to 3rd quarter 2014 (in millions)' http://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/ accessed 15 May 2016.

[23] See Statista 'Leading countries based on number of Facebook users as of May 2014 (in millions)' at: http://www.statista.com/statistics/268136/top-15-countries-based-on-number-of-facebook-users/ accessed 15 May 2016.

[24] Twitter, 'About Twitter' at: https://about.twitter.com/company accessed 15 May 2016.

[25] C Abram, 'Welcome to Facebook, Everyone' (*Facebook Blog*, 26 September 2006) http://blog.facebook.com/blog.php?blog_id=company&m=9&y=2006 accessed 15 May 2016; Facebook, 'Terms of Use' http://www.facebook.com/terms.php accessed 15 May 2016.

[26] Facebook, 'Friends' at: http://www.facebook.com/help.php?page=441 accessed 15 May 2016 (suggest contact to current contacts); 'Find People You Know on Facebook' https://www.facebook.com/help/146466588759199 (search for users) accessed 15 May 2016; F Ratiu, 'People You May Know' (*Facebook Blog* 2 May 2008) http://blog.facebook.com/blog.php?post=15610312130 accessed 15 May 2016.

(provided that the privacy settings set by the user allow this).[27] The timeline includes a cover photo, profile picture, timeline stream and different information a user decided to share (personal information, interests, hobbies and various other applications such as games or events). There is also a private chat and messaging system, 'Messenger', acting as a stand-alone application.[28] Another important feature is 'Photos', a photo sharing functionality, with a tagging system: users click on a face in a photo (posted by them or someone else) and enter the person's name. If that person is a Facebook user, then the photo will be linked to their timeline/photo stream (if allowed by privacy settings).[29] These activities generate a stream of event notifications, and since September 2006, that stream is visible to users. A user's homepage displays a 'News Feed', a list of the most recent notifications from his friends.[30] Facebook's feature 'Platform' enables developers to create 'Applications' that plug into the Facebook site.[31] The Platform includes an interface for providers to issue instructions to Facebook and gathers information from it,[32] along with a custom markup language that enables notifications and interface shown to users with the Facebook look and feel.[33]

Twitter, conversely, has been conceived as a 'conversational microblog', where users post messages that appear in the streams of all the people who are subscribed to them (who follow these users, in Twitter terms). On Twitter, users who subscribe to

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[27] Facebook, 'Timeline' https://www.facebook.com/about/timeline accessed 15 May 2016.

[28] Facebook, 'Messenger' https://www.facebook.com/mobile/messenger accessed 15 May 2016.

[29] Facebook, 'Uploading Photos & Profile Pictures' https://www.facebook.com/help/118731871603814/ accessed 15 May 2016.

[30] Facebook, 'How News Feed Works' https://www.facebook.com/help/327131014036297/ accessed 15 May 2016.

[31] Facebook Blog, 'Platform is here' https://www.facebook.com/notes/facebook/platform-is-here/2437282130 accessed 15 May 2016.

[32] Facevook Wiki, '*API*, Facebook Developers Wiki' http://wiki.developers.facebook.com/index.php/ accessed 15 May 2016.

[33] Facebook Wiki, '*FBML*, Facebook Developers Wiki' http://wiki.developers.facebook.com/index.php/FBML accessed 15 May 2016.

and receive one's messages are one's 'followers' or the people who are following him. On the other hand, the people whom that person is following are called his friends. The size of the message, so called 'tweet', is 140 characters only, which puts Twitter in the microblogging category.[34] In order to address someone on Twitter, users use the functionality of @reply, including a user's username to indicate that the tweet is specifically intended for them (e.g. a tweet including @EdinaRl would be directed to the author's Twitter account and shown on her main page). The tweet is still public, but now the addressee is known, and the flow of a conversation is clearer. Another important feature on Twitter is a hashtag, identified by the # sign. The hashtag is a descriptive keyword, and by using/searching for a hashtag, users can join/follow the conversation on particular topics (e.g. #digitalassets would contribute to the conversation on digital assets). Hashtags are, however, not Twitter's inventions, but of a similar service called Jaiku.[35] Additionally, the action of retweeting means using someone else's tweet and rebroadcasting it with attribution to that user, so that retweeter's own followers can see it. Finally, users can send private messages, with the same character limit, and attach photos/videos to their tweets.

To illustrate the importance of looking at what happens to one's social network account content on death, we will look at some of the interesting statistics on Facebook (in the absence of the corresponding Twitter statistics). Research finds that in the first eight years of Facebook's existence, 30 million of its users died, with an average of 428 users dying every day.[36] These accounts are then either being memorialised (if requested, see section 5.3.1.), deactivated (probably in a very limited number of cases, but there is not reliable data on this) or just remain on Facebook's platform (probably the most likely scenario, even in the lack of empirical data to prove this).

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[34]Barash and Golder (n 14) 144.

[35] Ibid 147.

[36] Webpage FX Blog, 'What Happens to Your Online Presence When You Die? [Infographic]' http://www.webpagefx.com/blog/internet/happens-online-presence-die-infographic/ accessed 15 May 2016.

As indicated above, the creation of content, primarily images, videos, notes, status updates, tweets, etc., is one of the most essential functions of social networks.[37] Therefore, the chapter will look at the content of SN accounts in terms of private messages, images, videos, status updates/tweets, personal data and information. The focus will not be on some other features, for instance, Facebook groups, events or games. Games, could arguably, follow the line or arguments established in chapter 3, especially as virtuality of social networks increases.[38] Groups and events usually merely share public information and/or exchange in terms of the content already mentioned (messages, statuses, images, videos). Access to these, unless they are secret, is usually straightforward and the content there is often public. There can be an issue if a deceased person is the only administrator of a group and this will be tackled in the following sections. The focus, however, will be on the private, individual content shared/created through an SN account, as the whole thesis looks at the relevant post-mortem issues from a user perspective. User accounts will be explored in their relation to terms of service and in so far as it restricts/enables access to the content. The focus, on the other hand, is not in the interface and current application features of these SNSs. The reason for this is the tremendous pace at which these features change, on the one hand, [39] and the importance of the phenomenon rather than technicalities, on the other.

The chapter will follow methodology and structure established in the previous chapter in an attempt to address legal nature of social networks sites profiles/accounts. The analysis will include copyright, property, contracts and privacy issues. Similar to VWs and emails, these accounts represent a complex set of legal relations, between users

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[37] Statista, 'Experience of and interest in online content creation in the United Kingdom (UK) in 2012' http://www.statista.com/statistics/271826/online-content-creation-experience-and-interest-of-respondents-in-the-uk/ accessed 15 May 2016.

[38] Facebook aims to introduce environmentality and 3D physicality. This way, Facebook aims to mimic VWs, recognising advantages and desirability of these worlds. See Zuckerberg announcing Facebook's acquisition of Oculus VR, the leader in virtual reality technology, M Zuckerberg, Facebook post, (*Facebook*, 25 March at 22:30) https://www.facebook.com/zuck/posts/10101319050523971 accessed 15 May 2016.

[39] Grimmelmann has accurately commented that Facebook's 'pace of innovation is so blisteringly fast that is it not uncommon to log into the site and see that part of the interface has changed overnight to offer a new feature.' Grimmelmann (n 3) 1145.

and the platform/intermediary, between users themselves and even third parties (advertisers, government, media).

In contrast with chapter 3, where assets in VWs are looked at from a perspective of three layers (see section 3.2.), the case study of SNSs requires a perspective similar to the one in chapter 4, discussing emails. There are again two layers, akin to the layers one and three in VWs. The first one is the developers' code, which entitles the SNS providers to own the underlying system and account created in order to be able to use the system. The second layer is similar to the VWs third layer, as it predominantly includes copyrightable material (see section 5.2.1.). To emphasise once more, the main difference is that the second layer in VWs, the one mimicking the real world property objects (swords, ships, weapons, avatars, etc., see section 3.2.), does not exist in the case of SNSs, at least not until *virtuality* is achieved (user's immersion, 3D environments, etc. see section 3.5.). Therefore, the approach in this chapter is similar to the one in chapter 4 and the same legal issues will be analysed, as set out below.

It is argued that all the six main issues around post-mortem transmission of emails apply to social networks as well (legal definition; access; conflicts with criminal legislation; jurisdiction; conflicts between various interests and conflicts between succession laws and digital solutions, see section 4.1.). These issues are, understandably, manifested differently and the chapter will take account of these differences, applying the same conceptual approach and focusing on the issues of legal nature, access to the content and different conflicts arising in the transmission of SNS contents.

5.1.1. Illustration through case law

Following the structure adopted in the previous two chapters, and in order to illustrate some of the issues around the transmission of social network accounts on death, this section will describe a couple of cases involving Facebook and Twitter. Unfortunately, and as in the previous case studies, there has not been a comprehensive, relevant litigation in the UK or US that would answer some of the questions posed in these and similar cases more specifically, namely, what is the legal nature of this content and whether it transmits on death.

In one of the first cases reported by media, Karen Williams, the mother of Loren Williams who was killed in a motorbike accident in 2005 at the age of 22, requested access to her son's account.[40] Karen asked Facebook not to delete her son's account after she had she obtained his password through a friend of her son. Soon after she began logging in, the password was changed or deactivated by Facebook, and she could not access the account anymore.[41] Karen started negotiating with Facebook through her lawyer, and they agreed that she would be able to access Loren's account for ten months. In 2007, Karen also obtained a court order from Multnomah County Circuit Court, Oregon, giving effect to the agreement.[42]

Another case that has only been known from its media coverage again illustrates some of the issues and the *ad hoc* response Facebook has to the issues surrounding accounts of deceased users. Facebook has recently launched a 'Look Back' feature that creates a video generated by popular moments on a person's profile. John Berlin, the father of Jesse, who died in 2012 at the age of 22, posted a YouTube clip asking Mark Zuckerberg, Facebook's founder, to create a Look Back video for his son. Berlin did not have access to his son's account and thus could not create one himself. After widespread media support for Berlin, Facebook agreed to create one on his behalf using content Jesse had posted publicly, again impliedly referring to their policy of protecting users' privacy, even upon death (see section 5.4). Facebook also noted that 'This experience reinforced to us that there's more Facebook can do to help people celebrate and commemorate the lives of people they have lost' and that they will share more about this in the future.[43] As seen further in this chapter, this has not

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[40] L Gambino, 'In Death, Facebook Photos Could Fade Away Forever' (*Associated Press*, 1 March 2013) http://news.yahoo.com/death-facebook-photos-could-fade-away-forever-085129756--finance.html accessed 15 May 2016.

[41] Huff Post Tech 'KarenWilliams' Facebook Saga Raises Question OfWhether Users' Profiles Are Part of "Digital

Estates' (*Huffington Post*, 15 March 2012) http://www.huffingtonpost.com/2012/03/15/karen-williams-face book_n_1349128.html accessed 15 May 2016.

[42] Ibid.

[43] D Lee, 'Facebook reviews family memorials after dad's plea' (*BBC*, 6 February 2014) http://www.bbc.co.uk/news/technology-26066688 accessed 15 May 2016.

happened yet, and Facebook has not come up with significant changes in this regard. There have been, reportedly, other cases where deceased user videos have been provided to their families upon request, and the request for a deceased's look back video has now been incorporated in Facebook's terms.[44] As seen in section 5.3., however, according to the terms of Look Back video provision, Mr Berlin would not be able to get it anymore, as he was not a friend of his son on Facebook.

The case of Sahar Daftari mentioned in chapter 4 (see section 4.1.1.), illustrates the issue of international jurisdiction in these cases.[45] Although it is not within the scope of this thesis to discuss the jurisdiction issue, it is important to note here that Facebook refused to grant access to the account to Sahar's family without a court order and the family initiated a request to subpoena the records in the Californian courts. The court found that the US Stored Communications Act[46] prevents a US service provider from disclosing stored communications in civil proceedings[47]. As stated in chapter 4, the court has extended the effect of the US statute to a foreign citizen, stating that there was no duty to provide stored communications for the purpose of the foreign proceedings. The Court held: 'It would be odd, to put it mildly, to grant discovery related to foreign proceedings but not those taking place in the United States.'[48] The court also noted that Facebook could disclose the records to the family voluntarily, as this is in accordance with the Act. It has not been reported if Facebook has done so, but bearing in mind their terms of use, it is unlikely that they did (see section 5.3.).

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[44]K Wagner 'Facebook Will Make 'Look Back' Videos for Deceased Users' (*Mashable*, 21 Feb 2014) http://mashable.com/2014/02/21/facebook-look-back-video-deceased/ accessed 15 May 2016.

[45] *In re Request for Order Requiring Facebook, Inc. to Produce Documents and Things*, C 12-80171 LHK (PSG) (N.D. Cal.; Sept. 20, 2012).

[46] 18 U.S.C. § 2701.

[47] See *In re Request for Order Requiring Facebook, Inc. to Produce Documents and Things*, citing *Theofel v. Farley-Jones*, 359 F.3d 1066, 1074 (9th Cir. 2004): 'Having reviewed the papers and considered the arguments of counsel, IT IS HEREBY ORDERED that Facebook's motion to quash is GRANTED. The case law confirms that civil subpoenas may not compel production of records from providers like Facebook. To rule otherwise would run afoul of the "specific [privacy] interests that the [SCA] seeks to protect."' 2.

[48] Ibid.

This case thus serves as an example where precedence has been given to deceased's privacy over the claimed property right of the family and heirs.

Regarding Twitter, there has been scarce case law in the US, only addressing proprietary or privacy interests in Tweets in relation to criminal investigations and the Stored Communications Act.[49] In the case *New York v. Harris,* [50] Twitter sought to quash the subpoena issued by the New York County District Attorney's Office in January 2012. The subpoena required Twitter to provide user information (email addresses etc.), and tweets tweeted from the account @destructuremal allegedly used by Malcolm Harris. Harris was charged with disorderly conduct, after participating in the Occupy Wall Street march on the Brooklyn Bridge. After getting the District Attorney's order, Twitter informed Mr Harris that his account had been subpoenaed and, subsequently, Harris filed a motion to quash the subpoena. Twitter decided that it would not comply with the subpoena until the court ruled on this motion. The court order upheld the subpoena in April 2012. The court held that the defendant had no proprietary interest in the user information on his Twitter account, and he lacked standing to quash the subpoena.[51] The court also stated that by agreeing to Twitter's terms of service agreement, the user 'was granting a license for Twitter to use, display and distribute the defendant's Tweets to anyone and for any purpose it may have.'[52] At that time, Twitter's terms of service agreement stated in part:

> *By submitting, posting or displaying Content on or through the Services, you grant us a worldwide, non–exclusive, royalty–free license to use, copy, reproduce, process, adapt, modify, publish, transmit, display and distribute*

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[49] See analyses in J Lamm, 'Defending Your Ownership and Privacy in Twitter (and Other Online Accounts)' (*Digital Passing Blog*, 25 July 2012) http://www.digitalpassing.com/2012/07/25/defending-ownership-privacy-twitter-online-accounts/ accessed 15 May 2016.

[50] *People v Harris*, 36 Misc 3d 613 [Crim Ct, NY County 2012].

[51] Ibid.

[52] Ibid.

such Content in any and all media or distribution methods (now known or later developed).

Following this decision, Twitter then moved to quash the April 2012 court order and had not complied with the order by then. At the same time, on May 17, 2012, Twitter revised its terms of service agreement to add 'You retain your rights to any Content you submit, post or display on or through the Services.' It could be argued that Twitter changed its agreement between April and June 2012 court orders in response to the April order.[53] In the June 2012 order, however, the court granted the motion to quash in part and denied it in part. It ordered Twitter to disclose all non-content information and content information older than 180 days, but content information less than 180 days old may only be disclosed under a search warrant.[54] It is interesting to note that, similarly to Facebook in *Daftari* and Yahoo in *Ellsworth,* Twitter decided to defend user's privacy and refuse to disclose the information until they exhausted legal challenges. However, even if not a subject matter of this case, the court did find that there are neither proprietary interests nor reasonable expectations of privacy in tweets. The analysis in this chapter will follow a similar line of arguments, with a difference in considering copyright as a tool (see section 5.2.1).

Another type of case where some illustration and potential assistance for determining the legal nature of SNS contents and accounts are those involving employers, departing employees, and their SNS accounts maintain by the employees. The most famous US case is *PhoneDog v. Kravitz*[55], where Noah Kravitz, an employee of PhoneDog from 2006, operated a Twitter account '@PhoneDogNoah.'[56], created by Kravitz on the employer's request to promote the company and to increase traffic to its website.[57] Kravitz left the company in 2010 and, contrary to PhoneDog's request to cease the use of the Twitter account, Kravitz changed the account name to

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[53] Ibid.

[54] *People v Harris* 2012 NY Slip Op 22175 [36 Misc 3d 868].

[55] 2011 WL 5415612 (N.D. Cal. 2011).

[56] *PhoneDog,* 2011 WL 5415612, 1.

[57] Ibid 4.

'@noahkravitz', taking over all of the followers he had gathered for the 'PhoneDogNoah' for his personal account.[58] In addition, shortly after leaving PhoneDog, Kravitz started working for their competitors, TechnoBuffalo, having similar duties as with the previous employer.[59] Consequently, PhoneDog filed a suit in the Northern District of California for misappropriation of trade secrets; intentional interference with prospective economic advantage; negligent interference with prospective economic advantage and conversion.[60] PhoneDog also sought $340,000 in damages as a 'foreseeable loss resulting from the defendant's conversion.'[61] The most interesting claim for the purpose of this thesis is conversion. The elements of a conversion claim under California law are: '(1) ownership of a right to possession of property; (2) wrongful disposition of the property right of another; and (3) damages.'[62] In relation to this, the Court in their November 2011 Opinion noted 'the nature of [the] claim is at the core of this lawsuit and cannot be determined on the present record.'[63] PhoneDog contended that, by owning the account, they own all the content and followers associated with it.[64] Kravitz, conversely, argued that the court should look at the account, tweets and followers separately. With respect to the followers, he argued that they are human beings and cannot be owned.[65] Account, on the other hand, is controlled and owned by Twitter and not the employer, Kravitz argued

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[58] Ibid 1.

[59] Ibid 2.

[60] Ibid 1.

[61] First Amended Complaint at 11, PhoneDog, 2011 WL 5415612 (2011) (No. C 11-03474 MEJ). PhoneDog's claim of a $340,000 loss was calculated using the alleged 'industry standard' value of twitter followers ($2.50 per follower per month). PhoneDog calculated their 17,000 followers were worth $42,500 each month, resulting in a total of $340,000 in damages. Ibid.

[62] *PhoneDog* (n 55) 9 (citing *G.S. Rasmussen & Assoc. v. Kalitta Flying Serv*., 958 F.2d 896, 906 (9th Cir. 1992)).

[63] Ibid 9.

[64] Plaintiff Phonedog, LLC's Opposition to Defendant Noah Kravitz's Motion to Dismiss at 6-7, PhoneDog, 2011 WL 5415612. (No. C 11-03474 MEJ).

[65] *PhoneDog* 3.

further.[66] The court, however, has never decided on these issues, because the case was settled eventually and the details of the settlement had not been disclosed.[67] Consequently, the court has once more failed to decide on the ownership of SNSs account and content and provide more clarity on this 'core' issue.

These cases/real world examples illustrate only a limited number of issues identified in the previous chapter and the section above (property, jurisdiction, privacy). This chapter will refer back to these examples, but will also look at other issues, not articulated in these cases (copyright, technology).

5.2. Legal nature of social network accounts content

The main concepts to consider relevant to the legal nature of SNS account contents, and following the approach adopted in the previous chapter are: property, copyright, contracts and privacy. The chapter will consider two alternative paradigms as to the nature of emails, used in chapter 4 as well, i.e.: 1. SNS content is protected by copyright as literary or artistic works; 2. the content is property (which takes us to the debate about whether information can be property, see section 4.2.2.1.). *Prima facie*, this content predominantly includes literary and artistic works created by their authors, SNS users. Therefore, copyright appears to be one of the most obvious answers when determining the legal nature of SNSs. The following section will thus discuss copyright in SNS content, in relation to transmission on death. Subsequently, the analysis will include the issues of property in a type of SNS content not susceptible to copyright protection.

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[66] Ibid.

[67] D Terdiman, 'Curious Case of Lawsuit Over Value of Twitter is Settled*'* (*CNET News*, 3 December 2012), http://news.cnet.com/8301-1023_3-57556918-93/curious-case-of-lawsuit-over-value-of-twitter-followers-is-settled/ accessed 15 May 2016. For more on the case see e.g. J McNealy 'Who owns your friends?: Phonedog v. Kravitz and business claims of trade secret in social media information' (2013) 39 Rutgers Computer & Tech. L.J. 30.

5.2.1. Copyright in SNSs and post-mortem transmission

Social networks contain vast amounts of potentially or actually copyrighted materials. These include, for instance, photos and videos uploaded on Facebook and Twitter; tweets; Facebook status updates; notes on Facebook in the forms of short stories/comments/poems, etc.

The question of copyright in the content posted on social network sites has been rather straightforward for many academics.[68] In Mazzone's opinion, for instance, 'poems, essays, photographs, videos, commentary, and even status updates are all potentially eligible for copyright protection.'[69] He also rightly observes that 'users do not depend upon the social networking site to obtain intellectual property rights.'[70] Similarly, Darrow, Ferrera and Tarney all assert even more firmly that videos and pictures on social networks are copyrightable and consequently, transmissible on death.[71]

Nevertheless, one should not assume that all the content will automatically qualify for copyright protection. This depends on the fulfilment of legal requirements (see section

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[68]'In the US Copyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.' 17 U.S.C. § 102(a) (2006) Digital works are eligible for copyright protection. Ibid § 101 ('A work is 'fixed' in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.').

[69] J Mazzone, 'Facebook's Afterlife' (2012) 90 N.C. L. Rev. 1643, 1651, citing § 102(a) (setting out the classes of work eligible for copyright protection).

[70] 17 U.S.C. § 201 (2006) § ('Copyright in a work protected under this title vests initially in the author or authors of the work.').

[71] *See* J Darrow, and G Ferrera, 'Who Owns a Decedent's E-mails: Inheritable Probate or Property of the Network?' (2006) 10 N.Y.U. J. Legis. & Pub. Pol'y Vol. 281; 282–83, 287-289; 17 U.S.C. § 102(a); T Tarney 'A Call for Legislation to Permit the Transfer of Digital Assets at Death' (2012) 40 Cap. U. L. Rev. 773, 783.

4.2.1.). An issue that could arise in relation to copyright and social networks is the fixation requirement, whether the fixation in an electronic form, on a remote computer or server would satisfy the requirement of fixation. This has been discussed in the previous chapter, and it is clear that electronic fixation does meet legal requirements of the US and UK copyright law (section 4.2.1.).[72] White rightly asserts that user-generated content, such as Tweets, posts on Facebook and posts on blogs, will often meet these requirements. She notes that this content can be perceived and reproduced from a medium, i.e. a computer or servers. She also argues that they also are available for more than a transitory duration. Tweets, for instance, 'update constantly, [but] do not automatically delete, nor do they overwrite each other when a new Tweet is posted. Tweets that are not on the immediate screen are archived and retrievable.'[73] In addition, many websites store tweets, including the US Congress Library.[74] The same could be argued for Facebook postings and blogs; they are being updated and moved from a News Feed, but they are also easily retrievable from a user's timeline.[75]

The second copyright requirement is originality, and the same analysis from chapter 4 applies here (see section 4.2.1.). If tweets, Facebook posts, updates, etc. contain single words or short phrases/titles, in the US law, they would most likely not meet the originality requirement. The situation is less clear in the UK and EU law (see section 4.2.1.). However, most of the posts on Facebook and Twitter are longer than that and most probably satisfy this requirement, provided that a user created them. With regards to photographs, another type of common Facebook and Twitter content, a similar originality threshold is required. In the US, a photograph would be considered

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[72] White (n 9) 697.

[73] Ibid.

[74] R Adams 'All your Twitter belongs to the Library of Congress' (*The Guardian*, 14 April 2010) http://www.theguardian.com/world/richard-adams-blog/2010/apr/14/twitter-library-of-congress accessed 15 May 2016.

[75] White (n 9) 698.

original if it includes a small degree of composure and positioning.[76] Under the UK copyright law, photographs are protected as artistic works under section 4 of the Copyright, Designs and Patents Act 1988. As noted in chapter 4 (section 4.2.1.), the UK requirement for originality has been similar to the US one (the labour and skill or 'sweat of the brow' test) but differs from the CJEU's 'author's own intellectual creation' test, which requires a higher level of creativity.[77] In relation to the photographs, in particular, it could be argued that the lower threshold of originality remains (including, e.g. composition, positioning the object, choice of the angle of shot, lighting and focus, being at the right place at the right time).[78] Having these tests in mind, it could be argued that a lot of (but not all) of the photos uploaded on Facebook and taken by that particular user could be protected by copyright. On the other hand, a lot of content would include the cases where users copy someone else's works, as in quotes (a very common type of content on SNSs, where users express their moods/opinions quoting different authors), links to different content on other websites (news portals, blog posts, quotation pages etc.), music (usually link to YouTube, Spotify etc.), articles (scholarly or news articles), photos taken by others etc. This category of content (user-uploaded or user-copied content) is not in the scope of this chapter, as the focus is on the content created by users and not the external content copyrighted by someone else. Users would not have any rights in this content and could, potentially, be liable for infringing copyright belonging to someone else. For this reason, this content is not the relevant one in relation to transmission on death.

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[76] Main cases *Burrow Giles Lithographic Co. v. Sarony*, 111 U.S. *53, 59* (1884*). Mannion v. Coors Brewing Co*., 377 F. Supp. 2d 444, *455* (S.D.N.Y. *2005)* Interpreting US Copyright Code 17 U.S.C. § 101.

[77] *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) [2012] Bus. L.R. 102 (16 July 2009) 33-37.

[78] Even if a photographer used a minimal level of judgment in taking the photograph, including elements such as positioning the object, choice of the angle of shot, lighting and focus, see *Antiquesportfolio.com Plc v Rodney Fitch & Co Ltd* [2001] E.C.D.R. 5 at 29-39; the unified test of *Infopaq* and *University of London press* has been adopted by the Court in *Temple Island Collections Ltd v New English Teas Ltd* [2012] EWPCC 1, where the judge held 'Ultimately however the composition of the image can be the product of the skill and labour (or intellectual creation) of a photographer and it seems to me that skill and labour/intellectual creation directed to that end can give rise to copyright.'.

Some SN content could resemble joint work or works of joint authorship in copyright law.[79] Users create and post content, other users comment on it, share it further, tag it etc. It is argued here that this analogy is not appropriate as the concept of joint work requires a high degree of integrity so that the contributions of individual authors are 'inseparable or interdependent parts of a unitary whole.'[80] or 'not distinct'.[81] On a social network, the contributions are easily distinguishable and separable, as they are all tagged by an author's name and can be edited/deleted/deactivated any time.[82]

The emphasis here, as in chapter 4, is on the unpublished works of authorship and materials, generated and posted on Facebook/Twitter only. This case is much different from emails, as on Twitter, most of the content is public and definitely published, and therefore protected as regular literary works, provided it meets the other requirements discussed above. In the case of Facebook, it is less clear, as publishing to a limited number of people is not making the content available to the public, would not qualify in the cases where privacy settings are set to 'friends only' and only a limited number of users can access the content (see section 4.2.1.).[83]

Therefore, if the content is deemed unpublished, the same findings as in emails apply (PMP used as an argument against the default publication of personal data). These works would potentially transmit on death, according to s. 93 CDPA 1988. Due to the complication explained in section 4.2.1.1.), it is argued the provision would need to be changed or the technology solutions (as proposed sections 5.5.3. and 6.2.), would need to be recognised as an 'entitlement' for the purpose of s. 93 CDPA 1988.

If the works are considered published, however, they are protected by copyright and the next-of-kin should be able to inherit and benefit from them for 70 years post-

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[79] See US Copyright Code 17 U.S.C. § 101 and the UK Copyright, Designs and Patents Act 1988 (c. 48), section 10.

[80] US Copyright Code ibid.

[81] UK Copyright, Designs and Patents Act (n 83).

[82] Hetcher (n 8) 888.

[83] See US case *Getaped.com, Inc. v. Cangemi* 188 F. Supp. 2d 398, 62 U.S.P.Q.2d (BNA) 1030 (S.D.N.Y. 2002), where publication on the website, available to all, constituted publication for the purpose of US Copyright Code 17 U.S.C. § 101. This interpretation would arguably comply with the UK Copyright, Designs and Patents Act 1988 (c. 48), s. 175.

mortem of the author. In accordance with the argument from chapter 4 (see section 4.2.1.), the content published elsewhere and accessible to the personal representative/executor/next-of-kin is not problematic here either. The estate will benefit from this content and the usual rules for succession of copyright apply.

Furthermore, social network authors of literary or artistic work would be entitled to moral rights, in addition to the copyright as an economic right (see discussion in section 4.2.1.). In the UK, unless waived, therefore, users would have moral rights for 70 or 20 year post-mortem, depending on the type of right as indicated in chapter 4. Moral rights in the UK, in principle, transmit on death (see section 4.2.1.), but there are further relevant issues in relation to Facebook in particular. Whereas Facebook, for instance, does not require the waiving of moral rights in their term of service, the access of a user's heirs to this content is limited (see section 5.3). Since we do focus on the unpublished work in this chapter (as the published works can be accessed elsewhere), the problem with passing them on is the one identified in the paragraph above, in relation to copyright, i.e. access and contracts, analysed in section 5.3.

In summary, the most significant issue when considering copyright and transmission of SN contents is the issue of access and relevant contractual terms analysed in section 5.3. In this regard, Mazzone draws an analogy with letters and the division between physical and intellectual property (section 4.2.1.), arguing that even if users have copyright in social network content, physical property would belong to the operator of the social network and 'the heir would have no right to obtain a copy of the materials'.[84] Section 5.3. will address these issues in more detail.

5.2.2. Property in SNS content

Some commentators do not have any dilemma that social network accounts and contents are essentially the property of the user. For them, a social network account 'is, like any online account, intangible property.'[85] This argument represents a simplification of the different features of SN contents and relationships between users

[84] Mazzone (n 69) 1644.

[85] Ibid 1650.

and SN sites, as discussed later in this chapter. It also favours the American approach to intangible property (see section 4.2.2.1.), and fails to account for intellectual property as a distinct legal concept. In addition, to rebut this argument, we could resort to Benkler's description of peer production, applicable to UGC in social networks, defined as a mode of 'information production that is not based on exclusive proprietary claims, not aimed toward sales in a market for either motivation or information, and not organized around property and contract claims to form firms or market exchanges.'[86] In Grimmelmann's view, 'that's a fair description of Facebook culture: users voluntarily sharing information with each other for diverse reasons, both personal and social', rejecting the IP protection of their posts or trading in their social capital and information.[87] However, he goes on to assert that the information commons is not desirable in the case of private information, as Facebook with its features of sharing, large user base, etc., is 'a privacy nightmare'.[88] This chapter will note the information commons feature of Facebook and Twitter, but also take into account Grimmelmann's fears, and provide a different account of legal nature of SN account contents.

This chapter will use the analysis of property in information and personal data set out in chapter 4 (see section 4.2.2.1.). As in the case of emails, in SN accounts, information would include non-copyrightable material, such as short phrases, single words, jokes in status updates on Facebook or tweets that will not meet the requirements for copyright protection. Additionally, personal data represent a significant amount of SN content. In the case of Facebook, for instance, there is personal data in the 'About' section (name, place of birth, address, education, age, sex, relationship status, religious and political beliefs, pictures, etc.), but also in the user's albums, notes, and status updates. A vast amount of this data belongs to the

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[86] Y Benkler, 'Siren Songs and Amish Children: Autonomy, Information, and Law' (2001) 76 N.Y.U. L. REV. 23.

[87] Grimmelman (n 3) 1188.

[88] Ibid.

category of sensitive data (religious and political beliefs, sexual orientation, etc.).[89] On Twitter, personal data is less prominent, but still, users do share some of it (in their general profile data, names, location, interests, etc.).

Regarding information and personal data, all the findings from chapter 4 (see section 4.2.2.1.) are applicable here. Conclusions about information and personal data failing to meet the black-letter and normative features of property are valid here as well, as this is essentially the same type of information and data, perhaps only more voluminous and prominent. Consequently, having in mind the issues with property and copyright in SNS content, the more relevant concept in relation to the legal nature of this SN content is PMP, discussed further in this chapter.

5.2.3. Analysis

The legal nature of SNS contents has been explored using two legal institutions, namely, property and copyright. The analysis has established that copyright can protect a significant proportion of SNS content. The chapter focused on the unpublished artistic (photographs), and literary (statuses, notes, poems, etc.) works. The reason for this is that the unpublished content is more problematic than the one that has been published elsewhere. In addition, this content is included in the definition of digital assets used in this thesis and represents digital assets *stricto sensu*. The problem with copyright is that not all the content would meet the requirement of originality, and consequently, we would encounter a regulatory vacuum for some of it. For the content that would satisfy copyright requirements, the problem is that terms and conditions and PMP might limit the default access to it. Finally, transmission of digital content is further complicated with the provisions of copyright law, as set out in section 5.2.1.

As established in chapter 4, it is argued that the non-copyrightable content of SNS, i.e. information and personal data, is not (doctrinal argument) and should not (normative argument) be considered property. Rather, other safeguards established

[89] Article 8 Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, Official Journal L 281, 23/11/1995 P. 0031 – 0050 (The Data Protection Directive); Section 2 Data Protection Act 1998 c. 29.

for information and personal data should be utilised to protect this content (breach of confidence, trade secrets, data protection). This, tentatively, means that the non-proprietary character of SNS to a considerable extent precludes their post-mortem transmission (section 2.5. and section 4.2.1.). The argument against the default transmission of the SNS content on death is further supported with the issues in transmitting copyright and the phenomenon of PMP (section 5.4.).

5.3. Allocation of ownership in social network sites

We have established so far that most SN content is copyright and therefore potentially transmissible. This section will analyse the allocation of ownership/property/copyright in the user's social network account contents as established by the service provider contracts (Facebook and Twitter). After having discussed the question of whether this content is property/work protected by copyright, this section will aim to answer the question of who gets the copyright, if applicable, according to the contracts users conclude before starting to use their SN accounts.

Facebook's terms of use and privacy policy are known as the Statement of Rights and Responsibilities and the Data Use Policy.[90] In addition, the labyrinth of terms governing users' behaviour on Facebook is also found in other specific terms, policy documents, guidelines and forms.[91] These terms are often revised, and proposed changes are posted to the Facebook Site Governance Page a minimum of seven days before the change is effective.[92] In terms of jurisdiction, apart from German users (where German law applies), the 'laws of the State of California will govern' the

[90] Facebook, 'Terms: Statement of Rights and Responsibilities' https://www.facebook.com/legal/terms accessed 15 May 2016.

[91] ibid s 19.

[92] ibid s 14. Users must 'Like' the page in order to receive a notification on their timeline.

contract.[93] However, all disputes arising from the contract will be resolved 'exclusively in a state or federal court located in Santa Clara County', California.[94]

Facebook is clearly referring to the ownership of user generated content as: 'You own all of the content and information you post on Facebook, and you can control how it is shared through your privacy and application settings.' [95] This term seems permissive compared to some other terms analysed in the previous chapters, emails in particular, as it recognises users' ownership and control of the content (see chapter 4 section 4.3.). The terms, content and information, seem to be covering pretty much everything posted on Facebook, including a user's personal data.[96] However, looking at the very broad licence that the user gives Facebook for using his content; this control does not appear to be as strong as initially stated.[97] Furthermore, the rather incomprehensible for an average user is the following term: 'When you delete IP content, it is deleted in a manner similar to emptying the recycle bin on a computer. However, you understand that removed content may persist in backup copies for a reasonable period of time (but will not be available to others).'[98] It follows from this provision that the user cannot be certain whether the content has actually been removed and what the 'reasonable amount of time' for which this content can persist really means. Also, the use Facebook makes of this particular content is unclear.

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[93] ibid s 16.1.

[94] Ibid.

[95] Ibid.

[96] See ibid Definitions: 'By "information" we mean facts and other information about you, including actions taken by users and non-users who interact with Facebook. By "content" we mean anything you or other users post on Facebook that would not be included in the definition of information.'

[97] 'For content that is covered by intellectual property rights, like photos and videos (IP content), you specifically give us the following permission, subject to your privacy and application settings: you grant us a non-exclusive, transferable, sub-licensable, royalty-free, worldwide license to use any IP content that you post on or in connection with Facebook (IP License). This IP License ends when you delete your IP content or your account unless your content has been shared with others, and they have not deleted it.' ibid

[98] Facebook ibid.

Furthermore, while the user seemingly retains control and can remove the content anytime, it is not the case with the account. The account can be transferred only with Facebook's written permission and only the user himself is entitled to access the account.[99]

Therefore, whereas Facebook notes that the user owns the content, Facebook owns the account, and we can identify the same legal implications as in email accounts. This diminishes users' control in what seems a rather comprehensive way at first glance. However, it is also understandable, as the user is actually using proprietary software that enables posting and sharing of his content (see section 3.2.). More control would arguably mean that the user could download, transfer their content from one platform to another, which would be a feature of property (see section 2.2.1). Also, the license is imposed, and the user cannot object to Facebook using his content. There are no negotiations in this regard, and the user again lacks control over his content.

Twitter also emphasise that users retain the right to 'any Content you submit, post or display on or through the Services.'[100] Twitter requires granting of a broad licence to user generated content, very similar to that which Facebook requires.[101] Therefore, the analysis is similar to the above. The difference is privacy settings and the way users share content on Twitter, which is public by default.[102] The underlying software is Twitter's ownership, and the user gets a non-assignable and non-exclusive license

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[99] 'You will not share your password (or in the case of developers, your secret key), let anyone else access your account, or do anything else that might jeopardize the security of your account. You will not transfer your account (including any Page or application you administer) to anyone without first getting our written permission.' Ibid.

[100] Twitter 'Terms of Service' https://twitter.com/tos accessed 15 May 2016.

[101] Ibid 'By submitting, posting or displaying Content on or through the Services, you grant us a worldwide, non-exclusive, royalty-free license (with the right to sublicense) to use, copy, reproduce, process, adapt, modify, publish, transmit, display and distribute such Content in any and all media or distribution methods (now known or later developed).'

[102] Ibid 'This license is you authorizing us to make your Tweets available to the rest of the world and to let others do the same.'

to use it.[103] However, as demonstrated in section 5.3., even if Twitter is ready to recognise property/copyright interests in tweets and content posted on their platform, the courts are less likely to make a similar decision. The matter is, however still very unclear, as the US cases on these issues primarily pertained to subpoenas and employer-employee relationships. Even there, the courts have failed to provide clear guidance. There are no relevant UK cases at the time of this writing.

5.3.1. Intermediary contracts and transmission of SNS content on death

Having concluded in the section above that users in effect do not own their accounts, and the rights in relation to their social network contents are limited, it is necessary to explore how this transposes to transmission of this content on a user's death.

The essential issue relating to transmission on death is the non-transferable nature of SN accounts. Facebook's terms state that the agreement 'does not confer any third party beneficiary rights'.[104] The Facebook account is non-transferable, including any 'Page' or 'application' users administer, without Facebook's written permission.[105] There is a clear prohibition of impersonation (using another user's account pretending you are that user), as password sharing is prohibited and users are also banned from letting anyone else access their account.[106] Twitter also have a strict impersonation policy, breach of which results in the permanent suspension of an account.[107] There

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[103] Ibid 'Twitter gives you a personal, worldwide, royalty-free, non-assignable and non-exclusive license to use the software that is provided to you by Twitter as part of the Services. This license is for the sole purpose of enabling you to use and enjoy the benefit of the Services as provided by Twitter, in the manner permitted by these Terms.'

[104] ibid s 19.9.

[105] Facebook (n 89) s. 4.9.

[106] Ibid S. 4.8.

[107] Twitter, 'Impersonation policy' https://support.twitter.com/groups/56-policies-violations/topics/236-twitter-rules-policies/articles/18366-impersonation-policy accessed 15 May 2016.

are no clear Twitter rules on whether the account is transferable, but one can infer from the impersonation policy that this is not allowed. Having in mind property incidents identified in chapter 2 (see section 2.2.), where transferability is essential, it is clear that, following the principles set out in chapters 3 and 4, that individuals can not own accounts. The question of owning content is a separate one, however, and will be looked at in more detail.

5.3.1.1. Facebook

Regarding deceased users, in particular, no provision expressly terminates the contract between Facebook and a deceased user. Facebook's terms, The Statement of Rights and Responsibilities and Data Use Policy, contain only one provision relating to a deceased's account. This obscure provision, hidden in the 'some other things you need to know' section of the Data Use Policy [108] refers to the Facebook 'memorialization' process and reads:

> *We may memorialize the account of a deceased person. When we memorialize an account, we keep the timeline on Facebook, but limit access and some features. You can report a deceased person's timeline at: https://www.facebook.com/help/contact.php?show_form=deceased. We also may close an account if we receive a formal request that satisfies certain criteria.*[109]

The use of terms 'may' point at the vague provision, almost a vague promise by Facebook, without any criteria specified to be met in order to memorialise or close an account.[110]

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[108] Facebook, 'Data Use Policy, Some Other Things to Know', at https://m.facebook.com/policy/?page=other accessed 15 May 2016.

[109] Ibid.

[110] See D McCallig, 'Facebook after death: an evolving policy in a social network' (2013) Int'l JL & Info Tech 1, 8.

The insertion of this option in Facebook's terms resulted from a personal loss of a Facebook employee.[111] This once more confirms the usual practice of dealing with the digital assets on death: the *ad hoc* solutions, provoked by media coverage (as in Look Back videos for instance), personal losses of employees, (memorialisation), political interests (US state laws) or court cases (Twitter and Harris case).

In addition to this provision within the actual agreement, all other details on Facebook's deceased policy are contained in various sections in Facebook's help centre and the options provided in several requests and contact forms. Bearing in mind their place and nature, Edwards and Harbinja question whether some of these forms and policies are 'merely statements of good practice' rather than binding contractual terms.[112] It is suggested therefore that the requests and help forms, not referred to in the general terms of service, are not a part of the contract between Facebook and their users, as they lack some major requirements of incorporation of terms.[113] in this case, it would be incorporation by reference, and Facebook has not taken appropriate steps to bring these to users' attention. Furthermore, like the general terms of service, these help centre pages and forms are often changed without notice to users, and it is difficult, if impossible, to keep track of the changes. McCallig argues that looking at Facebook's policies on deceased users, 'it seems clear that it is Facebook policy to memorialize the accounts of all deceased

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[111] H K Chan, 'Memories of Friends Departed Endure on Facebook' (*Facebook,* 26 Oct 2009) https://www.facebook.com/notes/facebook/memories-of-friends-departed-endure-on-facebook/163091042130 accessed 15 May 2016.

[112] L Edwards and E Harbinja, 'What Happens to My Facebook Profile When I Die? Legal Issues Around Transmission of Digital Assets on Death' in C Maciel and V C Pereira eds), *Digital Legacy and Interaction: Post-Mortem Issues* (Springer 2013)115–144.

[113] E.g. The requirement that these are brought to a user's attention before or at the time of the formation of contract, i.e. when the user signs up to use Facebook. see *Olley v Marlborough Court Ltd.* [1949] 1 KB 532 or *Parker v South East Railway Company* (1877) 2 CPD 416

persons.'[114] However, technically, Facebook do not know if someone has died unless they are being notified.[115]

Additionally, Facebook has no account inactivity policy, meaning that profiles might remain active for very long, if not permanently. Therefore, the only way for the accounts to be memorialised/deactivated is after a user/non-user have reported the death to Facebook. Initially, in addition to the user's family and friends, the request could have been submitted by the category of 'other'. It was unclear who exactly could submit a request as 'other', friends of friends, non-users, anyone, so in June 2013 Facebook removed 'other' from the relationship with the deceased options on the memorialisation request form.[116]

The effects of memorialisation are that it prevents anyone from logging into the account, even those with valid login information and password.[117] Any user can send a private message to a memorialised account. Content that the decedent shared, while alive, remains visible to those it was shared with (privacy settings remain 'as is').[118] In allowing privacy settings to remain post-mortem, Facebook claims that they wish to respect the privacy of the deceased. Depending on the privacy settings, confirmed Friends may still post to the decedent's timeline. Accounts (timelines) which

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[114] McCallig (n 110) 9.

[115] Martin J C, 'Have You Ever Wondered What Happens to Your Facebook Account After you Have Passed Away?' (*Silicon Valley Estate Planning Journal*, February 27, 2015) http://johncmartinlaw.com/ever-wondered-happens-facebook-account-pass-away/ accessed 15 May 2016.

[116] Facebook, 'Memorialization Request' https://www.facebook.com/help/contact/305593649477238 accessed 15 May 2016.

[117] For history of memorialisation, see McCallig (n 110) 11- 12.

[118] Initially, it was only visible to the user's friends, but this changed in Feb 2014, see L Fields 'Facebook Changes Access to Profiles of Deceased' (*ABC News*. 22 February 2014) http://abcnews.go.com/Technology/facebook-access-profiles-deceased/story?id=22632425 accessed 15 May 2016; C Price and A DiSclafani, 'Remembering Our Loved Ones' (*Facebook Newsroom* 21 February 2014)

http://newsroom.fb.com/news/2014/02/remembering-our-loved-ones/ accessed 15 May 2016.

are memorialised no longer appear in the 'people you may know' suggestions or other suggestions and notifications.[119] Facebook also remove 'sensitive information such as contact information and status updates' in order to protect the deceased person's privacy.[120] In addition, memorialisation also prevents the tagging of the deceased in future Facebook posts, photographs or any other content.[121] Unfriending (removing someone from one's friends list) a deceased person's memorialised account is 'permanent and there is no way for a renewed friend request to be approved'.[122] Seemingly, a friend cannot be added to a memorialised account or profile, which might be an issue for parents of deceased children who may not have added their parents as Friends while alive.[123] As McCallig notes, however, it is not clear whether Facebook would consider or grant a 'special request' to be added as a Friend if made, for example, by a bereaved parent (as it met the request of Mr Berlin and the access to his son's 'look back' video, see section 5.1.1).[124]

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[119] Facebook, 'Help Centre: What happens When a Deceased Person's Account Is Memorialized?' https://www.facebook.com/help/103897939701143/ accessed 15 May 2016.

[120] M Kelly, 'Memories of Friends Departed Endure on Facebook' (*Facebook Blog*, 26 October 2009)

https://www.facebook.com/blog/blog.php?post=163091042130 accessed 15 May 2016.

[121] S Buck, 'How 1 Billion People Are Coping with Death and Facebook' (*Mashable*, 13 February

2013) http://mashable.com/2013/02/13/facebook-after-death/ accessed 15 May 2016.

[122] Death and Digital Legacy, 'Nebraska is Latest State to Address Digital Legacy' (20 February 2012)

http://www.deathanddigitallegacy.com/2012/02/20/nebraska-is-latest-state-to-address-digital-legacy/ accessed 15 May 2016.

[123] Facebook, 'Special Request for Deceased Person's Account' https://www.facebook.com/help/contact/228813257197480 accessed 15 May 2016.

[124] Ibid.

With regard to deactivation and removal of a deceased account, the procedure is even more complex and vague. Facebook provides for this option,[125] but with very general statements and vague criteria, calling this a 'special request'. The option is available only to 'verified immediate family members' or an executor and the relationship to the deceased needs to be verified. Again, Facebook only promises that they will 'process' these requests, without giving a firm promise of fulfilling special requests.

Some researchers argue that the procedure for removal of a deceased user's profile is incongruous with Facebook's purpose and features (primarily keeping in touch with one's friends). Kasket for instance, questions the 'right' of parents (often not user's friends on Facebook) to request permanent removal when this digital bond with friends there and profiles are primarily co-constructed (through different interactions on Facebook, such as tagging, sharing, re-posting, etc.).[126] Pennington, although looking at a small sample size, finds that all her college-student research participants had never unfriended a deceased user, although the reasons given for not doing so varied.[127] Research finds that most Facebook users do not have their parents or children on their friend's list, but 93% of them do have other relatives on their Facebook friends list.[128] Also, a vast majority of users is connected to their offline friends, and only a small percentage has befriended individuals they have never met offline.[129] Deactivation, therefore, even more, that memorialisation, poses a question of reconciling the interests of a deceased user's family, friends and his interests. Is it in a user's interest to allow family members who are not on their friend's lists in these

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[125] Facebook, 'Help Centre: How do I ask a question about a deceased person's account on Facebook?' https://www.facebook.com/help/265593773453448 accessed 05 December 2014 accessed 15 May 2016.

[126] E Kasket, 'Access to the Digital Self in Life and Death: Privacy in the Context of Posthumously Persistent Facebook Profiles' (2013) 10 SCRIPTed 7.

[127] N Pennington, 'You Don't De-Friend the Dead: An Analysis of Grief Communication by College Students Through Facebook Profiles' (2013) 37 Death Studies 617, 625.

[128] M Duggan 'Demographics of Key Social Networking Platforms' (*Pew Internet*, 9 January 2015) http://www.pewinternet.org/2015/01/09/demographics-of-key-social-networking-platforms-2/ accessed 15 May 2016.

[129] Ibid.

co-constructed profiles to request deletion of such a profile and loss of the valuable materials for other users without a user expressing his wish in this direction? We will return to this question again later in this chapter and chapter 6.

Following the case from section 5.1.1 (Karen Williams), Facebook does not permit a family member access to the account, as opposed to copies of the contents of the account, which is permitted in certain cases. McCallig opines that this change is 'most likely linked to fears that doing so might breach the Stored Communication Act, a United States federal law which prohibits the disclosure of electronic communications to third parties, except in limited circumstances.'[130] The example of how this works in practice can be found in the case involving the family of Sahar Daftary, as explained in chapter 4 and section 4.1.1. Importantly, the judgement concluded with the obiter comment that: 'Of course, nothing prevents Facebook from concluding on its own that Applicants have the standing to consent on Sahar's behalf and providing the requested materials voluntarily.'[131] Lamm is encouraged with this statement, stating: 'this sentence is ultimately beneficial because it strongly suggests (to me [James Lamm]) that this court would not oppose the executor of a deceased user's estate providing 'lawful consent' under § 2702 of the Stored Communications Act.'[132] Lamm also reminds us of the location of the court, being in the Northern District of California, the chosen jurisdiction under Facebook's terms.[133] McCallig, on the other hand, warns that this obiter statement should be treated with caution, as first, 'it fails to acknowledge Facebook's fear of wrongly concluding that an administrator or executor has the power to consent in such circumstances'. Second, 'It also ignores the reality

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[130] Stored Communications Act 18 USC ss 2701–12.

[131] *In re Request for Order Requiring Facebook, Inc. to Produce Documents and Things*, Case No C 12-80171 LHK (PSG) (N.D. California, 20 September 2012) 2. 'Having agreed with Facebook that the Section 1782 subpoena should be quashed, the court lacks jurisdiction to address whether the Applicants may offer consent on Sahar's behalf so that Facebook may disclose the records voluntarily.'

[132] J Lamm 'Facebook Blocks Demand for Contents of Deceased User's Account' (*Digital Passing Blog,* 11 October 2012) at: http://www.digitalpassing.com/2012/10/11/facebook-blocks-demand-contentsdeceased-users-account/ accessed 15 May 2016.

[133] Ibid.

that even if such consent is lawful, Facebook is under no obligation to release those communications'[134] since the Act clearly grants to the provider a discretionary power of whether to disclose the contents of the communications. In section 2702, regarding the effect of a user's consent to the disclosure of communications, the Act is using the phrase 'may divulge the contents of communication'[135], which does not mean that the provider is required to act and provide the communications. This interpretation has been followed in the Daftari case, as well.[136] In addition, the content of communication cannot be disclosed to anyone but the government, and therefore the only solution is a user's consent.[137] There is no similar case in the UK to assist in interpreting the similar provisions of Part 1 Chapter 1 of the Regulation of Investigatory Powers Act 2000.

Finally, when requesting content from the deceased's account, the help page states:

> *We are only able to consider requests for account contents of a deceased person from an authorized representative. The application to obtain account content is a lengthy process and will require you to obtain a court order. Please keep in mind that sending a request or filing the required documentation does not guarantee that we will be able to provide you with the content of the deceased person's account.*[138]

The help page then links to a request form, which asks a number questions and requests submission of proofs of identity.'[139] It is worth noting this is much more

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[134] McCallig (n 110) 17.

[135] *See* 18 U.S.C. § 2702(b).

[136] Daftari and *United States v. Rodgers,* 461 U.S. 677, 706 (1983) ('The word 'may,' when used in a statute, usually implies some degree of discretion.').

[137] US Stored Communications Act § 2702(b).

[138] Facebook, 'How do I request content from the account of a deceased person?' at: https://www.facebook.com/help/123355624495297 accessed 15 May 2016.

[139] Facebook 'Requesting content from a deceased's person account' https://www.facebook.com/help/contact/398036060275245 accessed 15 May 2016.

definite than the old version of the request which permitted a request on the basis of an obituary.[140] As stated above, even after this procedure and the provision of documents, Facebook do not guarantee fulfilment of this request. This is a very similar situation to that of deactivation and removal of an account.

'Special request' in relation to a deceased's person Facebook profile appears to be an interesting addition to Facebook's terms and can be used for a variety of purposes, including asking any question in relation to the profile.[141] Special request is used if a friend wishes to obtain a Look Back video, for instance. Look back video is available on request of any of the deceased's Facebook friends and Facebook promise to send the link to this video, which cannot be edited and shared.[142] Again, Facebook justifies these restrictions by invoking privacy of the deceased user.[143]

Finally, Facebook seems to have followed Google's lead and Inactive Account Manager with their recently announced option of 'Legacy Contact'.[144] From February 12th, 2015, Facebook allows their US users to designate a friend or family member to be their Facebook estate executor and manage their account after they have died. The Legacy Contact has a limited number of options: to write a post to display at the top of the memorialised Timeline; to respond to new friend requests and to update the

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[140] K Notopoulos 'How Almost Anyone Can Take You Off Facebook (And Lock You Out)' (*BuzzFeed,* 4 January 2014) http://www.buzzfeed.com/katienotopoulos/how-to-murder-your-friends-on-facebook-in-2-easy-s#.xbLyLygo2 accessed 15 May 2016; J Schofield 'What happens to your Facebook account when you die?' (*The Guardian* 30 October 2014) http://www.theguardian.com/technology/askjack/2014/oct/30/what-happens-to-your-facebook-account-when-you-or-a-loved-one-dies accessed 15 May 2016.

[141] Facebook 'Special Request for Deceased Person's Account' https://www.facebook.com/help/contact/228813257197480 accessed 15 May 2016.

[142] Facebook 'Deactivating, Deleting & Memorializing Accounts' https://www.facebook.com/help/359046244166395/ accessed 15 May 2016.

[143] Ibid.

[144] Facebook 'Adding a Legacy Contact' (Newsroom, 12 February 2015) http://newsroom.fb.com/news/2015/02/adding-a-legacy-contact/ accessed 15 May 2016.

profile picture and cover photo of a deceased user.[145] In addition, a user 'may give their legacy contact permission to download an archive of the photos, posts and profile information they shared on Facebook.'[146] The Legacy Contact will not be able to log in into the account or see the private messages of the deceased. All the other settings will remain the same as before memorialisation of the account. Finally, an option is that a user decides that their account is permanently deleted after their death.[147] The rationale behind this feature, according to Facebook, is to support both the grieving individuals (it is not clear whether family, friends or all of them) and the users who want to take more control over what happens to their account on death.[148]

This move from Facebook is, admittedly, a welcome development for users. It does shift the balance of interests from family and next of kin to users. Users now have control over who their Legacy Contact is and this can only be one of their Facebook friends. The Legacy Contact does not take too much control over the deceased's account, as they cannot post on behalf of the user (apart from the one message in remembrance and changing the timeline and profile picture) and they need permission to download an archive of the deceased user's content. It is, however, unclear whether this permission includes all the content or some categories. Also, one of the issues is the obscure place of this option (as seen with other options in relation to the deceased's account, see discussion above). To designate a Facebook Legacy Contact, a user needs to go into 'Settings', choose 'Security', and then choose 'Legacy Contact' at the bottom of the page.[149] Moreover, it is unclear whether this option will trump the options heirs and next of kin have according to the existing policy (deactivation and memorialisation as set out above). Facebook need to make this clear in their terms of service. Also, there might be issues with conflicting interests of heirs/families with a friend designated as a legacy contact and having an option to download the archive of the deceased's content. For instance, if the heirs inherit

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[145] Ibid.

[146] Ibid.

[147] Ibid.

[148] Ibid.

[149] Ibid.

copyright in the user's works, and the Legacy Contact has acquired this content with the permission of the user, will this content be exempt from the provisions of the will/intestacy laws. With this option, Facebook notably shifts the balance and accounts more for the deceased's interests and decisions made before death. However, the balance remains unclear and all this needs to be clarified before Facebook moves to introduce this option to the rest of their user base. Otherwise, a welcome move might end up in a series of legal issues and disputes.

5.3.1.2. Twitter

Twitter's agreement is, similarly, spread over a number of pages, including Terms of Service,[150] Privacy Policy,[151] and 'the Twitter Rules, Policies and Violations'.[152] These terms are not very visible, as they are linked to from the user's profile, Help page. Also, Twitter policy differs in that it includes a period of inactivity after which the account can be permanently removed.[153] Another difference is that Twitter has a single option policy in relation to the deceased's account, set out in the 'Report a violation' section.[154] According to this section, essentially a help page rather than a firm contractual term, 'a person authorized to act on the behalf of the estate or with a verified immediate family member of the deceased' can request deactivation of the account. Further, they require an extensive list of information and documents to be provided in order to consider the request, a signed statement including: your first and

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[150] Twitter, 'Terms of Service' https://twitter.com/tos accessed 15 May 2016.

[151] Twitter, 'Privacy Policy' https://twitter.com/privacy accessed 15 May 2016.

[152] Twitter 'Policies and Violations' https://support.twitter.com/groups/56-policies-violations#topic_237 accessed 15 May 2016.

[153] Twitter, 'Inactive account policy' https://support.twitter.com/groups/56-policies-violations/topics/236-twitter-rules-policies/articles/15362-inactive-account-policy accessed 15 May 2016 'To keep your account active, be sure to log in and Tweet (i.e., post an update) within 6 months of your last update. Accounts may be permanently removed due to prolonged inactivity. Please use your account once you sign up!'.

[154] Twitter, 'Contacting Twitter about a deceased user or media concerning a deceased family member' https://support.twitter.com/groups/56-policies-violations/topics/238-report-a-violation/articles/87894-contacting-twitter-about-a-deceased-user-or-media-concerning-a-deceased-family-member accessed 15 May 2016.

last name, your email address, your current contact information, your relationship to the deceased user or their estate, action requested (e.g. 'please deactivate the Twitter account'), a brief description of the details that evidence this account belongs to the deceased, if the name on the account does not match the name on the death certificate, a link to an online obituary or a copy of the obituary from a local newspaper (optional). The documentation should be sent by post to Twitter's address in San Francisco. Further communication can be conducted via email. Twitter is explicit about the access to the account, like Facebook, stating: 'We are unable to provide account access to anyone regardless of his or her relationship to the deceased.' Additionally, Twitter provides an option to remove certain sensitive imagery from a users' account.[155]

Twitter terms thus offer fewer options than Facebook. Understandably, due to the features and nature of Twitter, it is unimaginable that the memorialisation option could be available. Followers on Twitter are not exactly one's friends, and many are in fact, complete strangers. The nature of community on Twitter is very different too (users sharing different interests and participating in discussions, not necessarily wanting to keep in touch and share personal information to the extent Facebook's users do). The option of getting the user's content, provided by Facebook in unclear circumstances, is not available on Twitter at all. On the other hand, most tweets are public in nature,[156] and anyone can access them. Therefore, it is not necessary to gain access to a user's account. Only a user himself can download an offline archive of their tweets. The family/friends could access the public tweets themselves, bearing in mind the period of inactivity, after which the account will be inaccessible (currently six months). Issues similar to Facebook arise in the case of private tweets and protected accounts, and for these, some form of user's choice is needed, as in Facebook. A solution akin to memorialisation is again not desirable here, given the features noted above.

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[155] Ibid.

[156] B Bosker and D Grandoni, '9 Quirkiest Facts About Twitter: Gaze Into The Soul Of The Twittersphere' (*The Huffington Post* 10 November 2012) http://www.huffingtonpost.com/2012/10/10/quirkiest-facts-twitter-users_n_1956260.html accessed 15 May 2016.

In conclusion, Twitter appears to have a sensible approach to the deceased users' accounts, given the nature and use of this network. The public nature of tweets is a mitigating factor in comparison with Facebook, as families actually can access these tweets if they wish. In addition, they can request deactivation and, in exceptional circumstances, protection of the deceased's privacy. The factor that complicates possible communication between families of the deceased and Twitter is Twitter's requirement that the correspondence should be conducted by post.

5.3.2. Analysis

First, the above discussion has demonstrated that SNS service providers expressly recognise users' ownership of their content. The service providers claim a worldwide, royalty-free and non-exclusive license to use and perform other actions with the content.

Second, as with emails, service providers allow discretionary access for heirs to content in the accounts of deceased users, but no formal property right is recognised or transmitted (see section 5.3.1.). There is an express prohibition of transfer of account login details and the account itself. Facebook offers more options than Twitter (deletion, access to content, memorialisation and the Legacy Contact, as opposed to deactivation only on Twitter), but these options are scattered and obscure, buried within different policies, forms and help pages. This does not offer a real opportunity for the users to understand them and arguably, these terms are not incorporated into the Facebook's contract with their users. Twitter, on the other hand, offer only one option, but this option is more prominent on the website, and it is more suitable for the purpose of Twitter accounts. Both the networks retain a wide margin of discretion, making loose statements, rather than binding contractual terms.

None of the providers allows access to the whole account, repeatedly invoking privacy protection and the Stored Communications Act. This is, as seen further in this chapter, rather controversial as PMP is not really protected, due to the lack of options for users to decide themselves on what happens to their account contents on death. With the recently introduced feature of the Legacy Contact, Facebook has followed Google's lead with the IAM and demonstrated their further commitment to users' choice and

protection of their interests and PMP. This option, as suggested in the above section, needs calibrating and clarifying, as discussed in the previous section and chapter 6.

5.4. Post-mortem privacy

As demonstrated in chapters 2 and 4, a critical issue that arises when considering the transmission of emails and SN account contents is post-mortem privacy, understood in terms of the liberal conceptions of autonomy, and the conceptions of privacy as autonomy, as discussed in Chapter 2 (sections 2.7. and 2.8.).

As in the case of emails, SN service providers refer to PMP repeatedly (without using the term itself), when refusing to transfer a deceased person's account/allow for access/memorialisation/content. PMP regulation (or a lack of it) has been explored in more detail in chapter 2 (see section 2.8.). The main arguments for the recognition of this phenomenon are set out therein, too. This section will look at it in so far as it includes some specific features relevant to social networks in particular. We will first look at the data protection regimes and their applicability to Facebook and Twitter with regards to their PMP contract terms.

It is important to note at the outset that Facebook must comply with the EU data protection legislation. As their subsidiary Facebook Ireland Limited are the provider of the services and data controller in the EU, the Irish data protection laws apply.[157] Moreover, in a German case, Facebook successfully claimed that as their headquarters are based in Ireland, Irish data protection law should apply to all their European Union users.[158] Recollecting the discussion in the previous chapter (where it has been demonstrated that 12 EU member states recognise PMP to an extent in their data protection regimes, excluding Ireland and the UK; the US does not protect

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[157] Data Protection Act 1988 (as amended).

[158] *Facebook Ireland Limited gegen ULD*, Az. 4 MB10/13, 8 B 60/12 (Beschwerdebegru¨ndung ULD) and *Facebook Inc. gegen ULD*, Az. 4 MB 11/13, 8 B 61/12 (Beschwerdebegru¨ndung ULD).

it either),[159] this means that the legislation requires that only personal data of living individuals are to be protected by Facebook.[160] Despite this, as seen in section 5.3.1., in the process of memorialising an account, Facebook promise to remove 'sensitive information such as contact information and status updates' in order to protect the deceased's privacy.[161] Another instance where Facebook allegedly protect post-mortem privacy is the request for a look back video or provision of the deceased's account contents. In this case, Facebook can only provide a unique link to the deceased's confirmed friends who requested the link, without an option to share it.[162] Finally, their option of the Legacy Contact protects user's choice and privacy, by providing for an individual's control over their account. This is demonstrated in the prohibition of the Legacy Contact to log in into the deceased's account and in that the Contact cannot see the deceased's private messages.[163]

This prima facie post-mortem friendly policy is further complicated by the fact that Facebook in principle do not allow to a majority of their users to indicate while alive how account contents are to be dealt with on their death (apart from the limited options of a Legacy Contact in the US, and even this is problematic as seen in the previous section). Therefore, Facebook does not really offer a meaningful choice to a user, as the memorialisation of an account is not something that a user can opt-in or opt-out of, but it is a default. The nexus of data protection regimes in the EU, and perhaps less in the US, is in the user's informed decision and control over their data.[164] This,

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[159] See also L Edwards and E Harbinja 'Protecting Post-Mortem Privacy: Reconsidering the Privacy Interests of the Deceased in a Digital World', (2013) 32(1) Cardozo Arts & Ent. L.J. 111.

[160] Data Protection Act 1988, s 1 (as amended).

[161] M Kelly, 'Memories of Friends Departed Endure on Facebook' (Facebook Blog 26 October 2009)

https://www.facebook.com/blog/blog.php?post=163091042130 accessed 15 May 2016.

[162] Facebook, 'Deactivating, Deleting & Memorializing Accounts' https://www.facebook.com/help/359046244166395/ accessed 15 May 2016.

[163] Facebook, 'Adding a Legacy Contact' (n 143).

[164] See Data Protection Directive.

as seen in chapter 4 section 4.4., in most cases does not apply to the deceased, as their personal data and privacy are, generally, not protected. However, if SN providers wish to establish this protection contractually, as they claim in their provisions, they would need to provide users with meaningful information and some options to control this while alive.

The issue of PMP has been addressed to an extent in a comprehensive review by the Office of the Canadian Privacy Commissioner in 2009.[165] Prior to the review, The Canadian Internet Policy and Public Interest Clinic (CIPPIC) complained in relation to the accounts of deceased Facebook users and pointed at three specific issues: an opportunity to opt-out of memorialisation of their profiles should be given to users; clear information should be contained in terms of service and privacy policy relating to the process of memorialisation, and a procedure should be provided for relatives of a deceased user to request the removal of a user's profile.[166] The Canadian Commissioner opined that most 'typical' Facebook users welcome memorialisation and the prospect of being posthumously remembered and honoured by their friends and that this is 'an important part of the Facebook experience'.[167] The Commissioner was satisfied that memorialisation meets the reasonable expectations of users and that an opt-out mechanism was not required.[168] Initially, however, in her preliminary report, the Commissioner had recommended that Facebook 'provide, and notify users of, a means whereby they may opt out of Facebook's intended use of their personal information for the purpose of memorialising accounts'.[169] Facebook, however, rejected this recommendation.[170] The Canadian Commissioner was satisfied that due

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[165] Office of the Canadian Privacy Commissioner, 'Report of Findings into the Complaint Filed by the Canadian Internet Policy and Public Interest Clinic (CIPPIC) against Facebook Inc., under the Personal Information Protection and Electronic Documents Act' (16 July 2009) https://www.priv.gc.ca/cf-dc/2009/2009_008_0716_e.asp accessed 15 May 2016.

[166] Ibid 65.

[167] Ibid 68.

[168] Ibid 69.

[169] Ibid.

[170] Ibid.

to the conclusion on the reasonable expectations of users regarding the process of memorialisation, that Facebook could rely on what she termed users 'continuing implied consent to the practice'.[171] A similar conclusion would be (hypothetically in the lack of relevant case law/reports) drawn for the US, as privacy legislation there excludes protection of privacy of the deceased.[172] With the introduction of the Legacy Contact feature, the Commissioner's requirements have been implemented to an extent, and Facebook reconsidered their argument stated above. However, probably due to the second part of the argument, the potential conflicts with the rules for the disposition of property, the solution was limited to the US and Canada and only recently introduced to the UK users.

In relation to the issue of deleting personal data from Facebook, it is again contradictory that, while expressly mentioning PMP at various points, Facebook currently offer this option to living users and to the deceased user in the US, providing a solution akin to Google Inactive Account Manager (see section 4.3.1.). In addition, Facebook warns that deleting information may need to be balanced with the rights of other users who 'may wish to retain on their account information posted by others'.[173] Moreover, even in the case of living users' request for deletion, some of the content still remains on Facebook, such as posts in groups and private messages to their friends.[174] This balance can also be disturbed when parents/next of kin request deletion of an account and friends would like to retain it and have it memorialised, for instance. Therefore, the argument seems to be contradictory once more and does not entirely promote PMP and user's autonomy.

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[171] Ibid 68.

[172] Edwards and Harbinja (n 112).

[173] E Mann 'Comments from Facebook on the European Commission's Proposal for a Regulation' (*Github* 25 April 2012) https://github.com/lobbyplag/lobbyplag-data/raw/master/raw/lobby-documents/Facebook.pdf accessed 15 May 2016, 5.

[174] 'Some of the things you do on Facebook aren't stored in your account, like posting to a group or sending someone a message (where your friend may still have a message you sent, even after you delete your account). That information remains after you delete your account.' Facebook 'Data Use Policy' (n 108).

The crux of the issue is how to balance the right of the 'owner' of information (the person who originally posted it) to control it with the rights of others who believe that this shared information is owned (jointly) by them. This is also where Facebook's terms, forms and help pages contradict each other. Thus, whereas information may be removed from your timeline by another, when Facebook define a user's information this includes items others have posted to the user's timeline.[175] This issue surfaced on the death of a user and according to Facebook's stance mentioned above, default memorialisation, without an opt-out option (with the exception of the Legacy Contact), solves the problem of maintaining the information on the network.

Finally, in relation to the third issue in the complaint to the Canadian Commissioner (a procedure for relatives to seek the removal of a deceased user's profile), Facebook confirmed that such a procedure was already in place and stated that they 'honor requests from close family members to close the account completely' and that their 'policy leaves the choice of whether or not a profile is 'memorialized' or retained indefinitely, to the next of kin'.[176] Consequently, while Facebook denied the user the option of deciding whether or not information should be deleted following death (with the exception of Legacy Contact), a family member or next of kin were considered suitable to make such a decision.[177] This policy has evolved since, as explained in section 5.3. Facebook note that requests will not be processed if they are unable to verify the requester's relationship to the deceased.[178] In terms of its effects, the removal request if granted 'will completely remove the timeline and all associated content'.[179] However, as indicated in section 5.3, the process is discretionary, and it

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[175] Facebook 'Help Centre: Accessing Your Facebook Data; Where can I find my Facebook data?' https://www.facebook.com/help/405183566203254/ accessed 15 May 2016.

[176] Office of the Canadian Privacy Commissioner (n 165), 66.

[177] Ibid.

[178] Facebook, 'Help Centre: How Do I Submit a Special Request for a Deceased User's Account on the Site?' at: https://www.facebook.com/help/265593773453448 accessed 15 May 2016.

[179] Ibid.

is unclear what criteria are used in deciding whether removal is appropriate.[180] It is also unclear what happens to the competing requests for memorialisation and deletion, when family members require different options, or when a user expressed the wish to have his content deleted in the Legacy Contact option.

To conclude, it is quite misleading of Facebook to state that it protects PMP, given the arguments and inconsistencies indicated above. The options provided in relation to the deceased's account seem to point to the opposite conclusion, namely, that Facebook protects the interests and wishes of the deceased user's *family* while providing only a limited option for a user to decide on what happens to his account upon his death. In addition to the issues of curtailing PMP, this power over a deceased user's profile is not in accordance with their general rule that no third-party rights are created or conferred.[181] As demonstrated above, this option needs to be reconsidered carefully and developed in order for Facebook to create a coherent post-mortem policy. Facebook, firstly and importantly, needs to decide as to whose interest should prevail, those of the deceased, their family and next of kin, or their Facebook friends. This decision is a basic presumption for implementing a coherent and sustainable policy. However, this primarily technological solution should be recognised in law, as is argued further in the following section and in chapter 6 of this thesis. Consequently, Facebook would be able to rightly assert that it fosters the user's autonomy coherently, as well as privacy based on autonomy and translated post-mortem (see sections 2.7.1. and 2.8.). This coherent policy would then be implemented technologically through the Legacy Contact, for instance. By enabling users to control their profiles post-mortem, and preventing others from circumventing the wishes of the deceased expressed technologically, Facebook would be respecting the autonomy which underpins Internet privacy rights (according to Bernal) and also recognising the PMP rights of their users (framed conceptually in section 2.8).

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[180] Mazzone (n 69) 1661–1662.

[181] Section 19.9 of the Facebook Terms (n 89).

Twitter does not address personal data and privacy of deceased users in its Privacy Policy.[182] Neither is the issue mentioned in its guidelines on contacting Twitter about a deceased user. Instead, the guidelines note: 'We are unable to provide account access to anyone regardless of his or her relationship to the deceased', invoking privacy of the deceased.[183] For Twitter, however, the issue is less prominent as the majority of content published there is public anyway, and the users consent to this when accepting the terms of service.[184] This is the default setting, public tweets. The user can, however, choose to make their tweets private and allow only approved followers to see them.[185] This is done by a very low percentage of Twitter users,[186] as protecting tweets almost defeats the purpose of Twitter. The question of PMP would, therefore, relate only to this small number of Twitter users and the findings regarding Facebook would apply to these accounts, too.

As established in the previous chapter and confirmed herein, PMP serves as an argument against the default transmission of emails or SN account contents on death without the deceased's consent, i.e. through the laws of intestacy or by requiring the intermediaries to provide access to the deceased's emails. This further justifies the court's decisions in the cases of *Ellsworth* and *Daftari* (more impliedly, though) and the service providers' ToS, which implicitly recognise PMP. Recognition of PMP, and consequently autonomy, questions, therefore, the default position of using

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[182] Twitter 'Privacy Policy' (n 151).

[183] Twitter, 'Contacting Twitter about a deceased user or media concerning a deceased family member' https://support.twitter.com/groups/56-policies-violations/topics/238-report-a-violation/articles/87894-contacting-twitter-about-a-deceased-user-or-media-concerning-a-deceased-family-member accessed 15 May 2016; The fact that Twitter does consider post-mortem privacy had been confirmed to the author by a Twitter employee. Interview on file with the author (see section 1.4.).

[184] 'Our Services are primarily designed to help you share information with the world. Most of the information you provide us is information you are asking us to make public. This includes not only the messages you Tweet and the metadata provided with Tweets...' Twitter 'Privacy Policy' (n 151).

[185] Twitter, 'Help Centre: About public and protected Tweets' https://support.twitter.com/articles/14016 accessed 15 May 2016.

[186] Beevolve, 'An Exhaustive Study of Twitter Users Across the World' at: http://www.beevolve.com/twitter-statistics/#c1 accessed 15 May 2016; 11.84% of Twitter users have protected accounts on average.

transmission by way of the laws of succession for some kinds of digital assets (those containing a vast amount of personal data, such as emails and social networks). Rather than using the current offline defaults, it is argued here that more nuanced solutions for the transmission of SN account contents are needed. These solutions will be explored in the following sections and would aim to account for the privacy interest of the deceased and his autonomy. These interests are currently mostly not recognised, as the law favours the heirs and the technology solution has initially favoured the interests of the surviving families too. As information generally cannot be viewed as a property object (see section 4.2.2.1), and it represents a significant portion of the content online, laws that had a purpose of regulating the disposition of the traditional types of property (including copyright, but with some exceptions as seen in section 5.2.1.) should not apply by default. Autonomy and the privacy interests of the deceased based on autonomy should be considered much more when suggesting solutions for the transmission of digital assets in general.

5.5. Solutions for transmission of social network content on death

The final section will offer some tentative solutions in relation to transmission of SNS content on death. More general, albeit provisional, solutions will be offered in the final chapter. This section is much more detailed than the corresponding one in the previous chapter (section 4.5.), for the reason that policymakers, as well as scholars, have extensively commented on SNS contents, offering different solutions for the transmission of this content on death. The most significant proposals are analysed in this section.

5.5.1. Policy solutions

Before evaluating some solutions to the issues identified in this chapter suggested by academics, we will look at the US legislative proposals in relation to social networks content.

Some of the US states have been particularly active in legislating about the transmission of digital assets on death issues. This has been looked at in more detail

in chapter 4 section 4.5. and in chapter 6, section 6.2.1. As suggested in the previous chapter, these laws have been inspired by the publicity around the *Ellsworth* case and similar controversies, resulting in partial and responsive statutes, rather than comprehensive and evidence-based legislation. Some laws grant the executor power to access digital assets only 'where otherwise authorized.' Therefore, it is imaginable that service providers would challenge these efforts to apply the law where it appeared to violate terms of service, and the outcome is not always certain. This has been illustrated in section 5.1.1 and the Williamson case. There might also be jurisdictional clashes where the law of the state where the deceased died domiciled or resident was not the same as the law governing the service provider contract, as seen in the Daftari case.[187]

The answer to this piecemeal legislation and possible conflicts of law may be harmonisation within the US under the leadership of the Committee on Fiduciary Access to Digital Assets (see section 6.2.1. for more details).[188] The most recent draft aims to authorise fiduciaries to access, manage, distribute, copy or delete digital assets and accounts. It addresses four different types of fiduciaries: personal representatives of decedents' estates, conservators for protected persons, agents acting under a power of attorney, and trustees.

The final chapter identifies some of the issues surrounding the Draft. It is noted that some of the most controversial issues are being disputed within the Committee, such as clarifying possible conflicts between contract and executry law[189], and between heirs, family and friends. The latest version of the proposal, however, provides for

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[187] J Darrow and G Ferrera 'Who Owns a Decedent's E-Mails: Inheritable Probate Assets or Property of the Network?' (2006) 10 N.Y.U. J. Legis. & Pub. Pol'y Vol. 281, 297.

[188] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (July 2014) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADAA_Final.pdf accessed 15 May 2016.

[189] Section 4 of the Draft reads 'Except as a testator otherwise provided by will or until a court otherwise orders, a personal representative, acting reasonably for the benefit of the interested persons, may exercise control over the decedent's digital property to the extent permitted under applicable law and a terms-of-service agreement.' Ibid; This provision clearly favours terms of service agreements and lacks clarity for personal representatives.

access to all communications, including email contents and log information (unless prohibited by the will)[190], even in the cases that this access conflicts with the ToS (for example, as seen in Facebook and Twitter ToS above). In these cases, the legislation adopted pursuant to the Act would trump the ToS.[191] The deceased users would be able to control this access by signing a separate set of terms and conditions. It is unclear what the final version of this Act will look like, and it remains to be seen whether it will change and address these issues and whether it will be adopted widely amongst the US states.

Looking at Facebook in more detail, the proposed changes would affect the balance between Facebook's control over the deceased's accounts and their personal representatives/executors. This would mean that personal representatives will have a right by default, to access, manage, deactivate or delete an account or its contents, or both. Some of the difficulties would include the rights of a personal representative to manage Pages or Groups on Facebook, particularly when there are multiple administrators. Another prominent issue is the option for a fiduciary to transfer an account. Facebook's terms are not addressing this expressly at the moment, but if they chose to change their terms and prohibit the transfer of the account and its contents following death, this would be prohibited by the Act.[192] If a user wishes to rebut fiduciary access, he would be forced to make a will, under this proposal.

As noted by McCallig, the biggest drawback of this proposal is that 'it will do little to assist in the development of an internal (in-service) option for an account holder regarding account memorialization, disposition or removal following their death.'[193]

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[190] S. 4 National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (February 15-16, 2013 Drafting Committee Meeting) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013feb7_FADA_MtgDraft_Styled.pdf accessed 15 May 2016.

[191] Sec 8 (3) (b) '(b) any provision in a terms-of-service agreement that limits a fiduciary's access to the 18 digital assets of the account holder under this [act] is void as against the strong public policy of 19 this state, unless the limitations of that provision are signed by the account holder separately 20 from the other provisions of the terms-of-service agreement.' National Conference of Commissioners on Uniform State Laws (n 190).

[192] Ibid.

[193] McCallig (n 110) 31.

Instead of providing for a more explicit and recognised option for a user to indicate his preference, the proposal will only shift the control from Facebook to the personal representative, again not recognising PMP or the user's wishes.

Finally, the Fiduciary Access to Digital Assets Act is not mandatory and would only apply to those states which choose to enact it. It remains to be seen what the response will be, but in the case of significant acceptance, Facebook might decide to take a uniform approach and adapt their deceased user policies accordingly.

5.5.2. Scholarly solutions

Social network content has been a subject of the biggest interest amongst scholars in the area of transmission of digital assets. The commentators attempt to address some of the issues analysed in this chapter, proposing legal, technological and market solutions.

McCallig underpins his proposal by a premise of 'the promotion of active testamentary choice', arguing that the default access rule should be overridden by the user choice of 'a service opt-ins to a digital remains disposition scheme.'[194] He argues that the in-service feature recognising user's choice or approved digital estate planning services should be utilised and recognised by statute, akin to the US example elaborated above. He also proposes that users should be prompted to review their choices regularly and that this option should not be only a waiver added to terms of service. He submits that the options for users to opt-in to different research and heritage schemes should be available for a limited time after death. He goes even further, introducing a granular approach where users would be able to choose the type of institution or research[195] McCallig suggests that Facebook should implement policy

[194] Ibid 34.

[195] Ibid.

changes on their network in order to benefit the user, families and heirs, by granting them certainty but also by promoting preservation and heritage institution access.[196]

Along similar lines, Sherry proposes a checkbox solution, whereby the SN would prompt a user to decide on what happens to their SN assets on death. She, however, expresses concerns and pessimism on whether SN sites would implement these options voluntarily, calling for the US state and federal statutory interventions.[197] In addition, she identifies some other options and further develops the existing ones, currently not included in the terms of service or the US legislation and legislative proposals, i.e. '(1) outright termination of a decedent's account by the social media service; (2) termination of the account by an executor; (3) allowing an executor to obtain the *contents* of an account; (4) allowing the executor *access for limited purposes*; (5) granting the executor uninhibited access to the account; and more.'[198] Beyer and Cahn[199] and Lamm *et alia* also argue that Congressional amendments to the Computer Fraud and Abuse Act and the Electronic Communications Privacy Act (in order to avoid criminal liability of service providers and fiduciaries) and a uniform state law is the best holistic approach to solving all these issues.[200]

Mazzone proposes a solution in the form of 'a Facebook executor', a person that would be designated by a user and allowed by Facebook to take over the account or to decide what happens to the account after the user's death (e.g. close down the account or request closure from Facebook, curate materials, or leave all of the content).[201] In addition to these functions, the executor would be responsible for

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[196] Ibid.

[197] K Sherry, 'What Happens to Our Facebook Accounts When We Die?: Probate Versus Policy and the Fate of Social-Media Assets Postmortem' ((2013) 40(1) Pepp. L. Rev. 185, 250.

[198] Ibid 235.

[199] G W Beyer and N Cahn, 'Digital Planning: The Future of Elder Law' (2013) 9 NAELA J. 135, 137.

[200] J D Lamm et.al. 'The Digital Death Conundrum: How Federal and State Laws Prevent Fiduciaries from Managing Digital Property' (2014) 68 U. MIAMI L. REV. 385, 414-419.

[201] Mazzone (n 69) 1655.

monitoring postings on the deceased's timeline and maintain the account in general (this would probably mean memorialisation).[202] Mazzone is, however, sceptical as to Facebook's will to implement these changes on their initiative. He maintains that Facebook is responsive to consumer pressure (and we have illustrated this in section 5.1.1.), but due to the lock-in effects (Facebook's popularity resulting in users not wanting to move to a different service, with more favourable terms) and users' aversion towards thinking and being reminded of their mortality, 'dissatisfaction with Facebook's current policy likely does not translate into a sufficient level of consumer pressure to force change.'[203] Mazzone, therefore, advocates a federal statute, which would impose these requirements and mandate some degree of control to users over their profiles post-mortem.[204] According to this proposal, Mazzone warns that protecting interests of other users would depend on the user and his representative. Whereas some users will request memorialisation of a sort, those who would prefer deletion could be prevented by a statute to delete all the content in order to enable protection of the competing interests of other users and their access to the content. One example that Mazzone uses to illustrate this suggestion is that the law could preserve access to content posted more than one year before the death of the user so that only access to recent postings is limited. Further, he proposes that the law could prohibit a representative from deleting or disabling access to content that has been shared with more than a specified number of other users. Finally, the law could limit the power of the representative to remove or prevent access to content that he considers harmful to the reputation of the deceased or includes sensitive content.[205] While the proposal is a good step forward, it is difficult to see how these different options could be implemented in practice by a representative. It seems rather impractical, bearing in mind the volume and nature of content shared on Facebook between millions of users.

5.5.3. Tentative solutions – a novel approach

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[202] Ibid 1579.

[203] Ibid 1681.

[204] Ibid 1685.

[205] Ibid 1684.

Notwithstanding the issues surrounding transmission of SNS content identified in the chapter, and bearing in mind solutions proposed by other scholars, it is argued in this thesis that a combined code-law-market solution is the most suitable for the SNS ecosystem.

However, these solutions based on different technologies (Google's IAM and Facebook's Legacy Contact) and digital wills (see section 6.2.2. for more details), could conflict with provisions of wills, or laws of intestacy, in that the digital versions would provide for an option for different beneficiaries/heirs than the offline ones. It would, perhaps, include friends and the digital community that would not be taken into account in an offline distribution of property (beneficiaries in a will, trust or heirs in intestate distribution). This further leads us to the problem identified in chapter 1 (section 1.5.) and chapter 4 (section 4.5.) of conflicts between the interests of deceased (expressed in his digital will, or traditional will), family (spouse, children, parents and other heirs) and friends (with whom the deceased might have firmer ties online that those with his heirs offline, as research suggests).[206] For the reason of the different nature of relationships online and PMP issues, it is argued here that the succession laws should recognise these different interests and allow for different beneficiaries to be designated online.

In addition to technology, adequate legislation is a necessary precondition for this, aiming to neutralise the potential conflicts between the law and the code solutions, primarily criminal and succession law. In this respect, the US Uniform Law Commission work is a good start, but as noted in the previous chapter, the outcome of this work is still uncertain, and its influence would be significant only if the provisions of the uniform act are adopted as laws of the individual states.

Criminal law issues are not the focus of this thesis, but it is important to address them to the extent that they might prohibit access to the deceased's social network account and further complicate any solutions suggested. In the US, the issue has been explored in *Daftari* and *Ellsworth* and pertains to conflicts with the Stored

[206] Kasket (n 125).

Communications Act and Computer Fraud and Abuse Act.[207] In the UK, the corresponding legislation is The Regulation of Investigatory Powers Act 2000 Chapter 1 Part 1 and The Computer Misuse Act 1990 section 1. These criminal law problems would generally be bypassed with the consent of the deceased. Therefore, it is unlikely that, especially in the UK, criminal laws would pose significant problems. In the US, similarly, the computer misuse legislation, arguably, would not pertain to the authorised personal representatives.[208] As for the SCA, a provider may disclose content 'with the lawful consent of the originator or an addressee or intended recipient of such communication, or the subscriber in the case of a remote computing service.'[209] Therefore, the key is to ensure that the user's consent is obtained or somehow implied in the legislation. A solution could be in that the social network sites include a provision in their terms of service for users to opt-in and consent to the disclosure of their content. This could also be done through a trust or a will. In addition, as proposed by Cahn, in order to clarify the federal law and make the interpretation more certain, there should be amendments to federal legislation (SCA and CMA).[210] For instance, amendments to the SCA would clarify the issues of criminal liability and specify that a user's choice indicated by selecting an option on SN should be interpreted as valid consent.

In England, there is also a need for legislative changes, which would recognise these technological solutions and prevent potential clashes with the laws of intestate succession or wills (Administration of Estates Act 1925 and Wills Act 1837), recognising users' technologically executed choice as a valid designation of a beneficiary for their social network content or against this transmission and deletion of the content.

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[207] Stored Communications Act, 18 U.S.C. § 2701 et seq. (SCA) and The Computer Fraud and Abuse Act, 18 U.S.C. § 1030.

[208] N Cahn, 'Probate Law Meets the Digital Age' (2014) 67 Vand. L. Rev. 1697, 1706; Lamm et al. (n 200), 400–01 (discussing how a terms-of-service agreement may prevent third-party access, and therefore, while a digital asset owner may consent to fiduciary access, a TOS may expressly prohibit it).

[209] SCA (n 207) § 2702(b).

[210] Cahn (n 208) 1726.

Along with the probate reforms, PMP and protection of the deceased's personal data is required, as discussed in chapters 2 and 4. This would recognise the user's autonomy and pre-mortem choice (e.g. by mandating the service providers to require the choice to be expressed during the registration process, or at some other appropriate occasion, depending on the technical features of a specific platform).

Practically, Facebook should make the existing options (memorialisation, deletion, request for content, special request, legacy contact) more obvious in their terms of service. In order to show a true respect for PMP, they should allow users to decide on whether they want their account to be memorialised, deactivated or some of the content/all of it transferred on death. To achieve this, they could prompt users regularly and come up with some innovative technological solutions, as they do with regards to their interface/functionalities, etc. This would be nothing entirely new to Facebook, as they have come up with quite an interesting tool to enable users to check and confirm their privacy preferences, 'privacy check up tool'.[211] Twitter could apply a similar approach to provide for users' control, and so could other SNS, not analysed here. Admittedly, this solution has been implemented by Facebook due to user and media pressure, which is not as prominent in the case of the deceased's user account issues. This pressure is limited to the pressure by families and next of kin, sometimes friends, but the users themselves have not been active in this regard so far.

5.6. Conclusions

This chapter has explored the legal aspects of transmission of social network account contents.

First, the analysis found that copyrightable material, information and personal data is the predominant type of this content. The finding from Chapter 1, that information, generally is not regarded property and neither are personal data is applicable here

[211] Facebook, 'Privacy Checkup Is Now Rolling Out' (Newsroom, 4 September 2014) http://newsroom.fb.com/news/2014/09/privacy-checkup-is-now-rolling-out/ accessed 15 May 2016.

too. Consequently, post-mortem transmission/decision on what happens to this data is largely impossible (*actio personalis moritur cum persona* principle, SN account is not an object of property). If on the other hand, some of this content satisfies the requirements for copyright protection, then copyright transmits and lasts for 70 years post mortem. The issue that arises here is whether the heir would have access to this content and, in the absence of this access, even copyright legislation might prevent transmission, as demonstrated in section 5.2.1.

Second, as in the case of emails and contrary to the VWs case study, even though SN content is not regarded property, service providers treat it as property and emphasise user's ownership over their content and recognise their copyright too. In addition, Facebook offers more post-mortem options than Twitter, but these options are scattered and obscure, buried within different policies, forms and help pages. This does not provide a real opportunity for the users to understand them. Both the networks retain a wide margin of discretion, making loose statements, rather than binding contractual terms. Further, there is an issue whether these 'terms' would be considered incorporated in Facebook's contract with their users, applying the law on the incorporation of terms into a contract. None of the providers allows access to the whole account, repeatedly invoking privacy protection and the Stored Communications Act. Finally, Facebook has followed Google's lead with the IAM, introducing their Legacy Contact that enables user's choice and control over some of the SBS content. This option is, however, only available in the US at the time of writing and needs calibrating and clarifying, as discussed in the previous section and in chapter 6 (section 6.2.3).

Third, the chapter follows the lines of arguments set out in chapters 2 and 4 and adopts a novel approach, using PMP as an argument against the default transmission of SNS content on death without the deceased's consent. This phenomenon, along with the non-proprietary nature of SNS content, should preclude the default transmission of SNS accounts according to the law of intestacy. In the absence of the user's will and in order to protect the decease's privacy, the default should be the deletion of data.

Fourth, the chapter finds that access and control by a fiduciary encounters problem in that it could be prevented by ToS provisions (see section 5.3.), privacy (see section 5.4) and criminal laws. To address these issues, the chapter proposes some tentative solutions (see section 5.5.3.).

In summary, this chapter, like chapter 4, proposes a combined law-technology-policy-market solution. The solution would require legislative and policy interventions in the probate and data protection areas. It would recognise and envisage technology solutions, ideally, in a neutral way; and to account for PMP, it would promote the user's autonomy and choice of what happens to their SN contents on death. The final chapter will consolidate these tentative solutions and offer a more holistic approach to the issues around the transmission of digital assets.

Chapter 6 – Tentative Solutions and Conclusions

The concluding chapter will first summarise the essential findings and conclusions from the previous five chapters. It will restate the fundamental issues and the rationale for the proposed tentative solutions. Second, the solutions will be grouped into policy, legal and technology/market ones, using Lessig's taxonomy and the four regulatory modalities of cyberspace (law, norms, market and 'code', i.e. technology, architecture).[1]

The main underpinning idea of this thesis is that interests of individual users to decide what happens to their data on death should be recognised and advanced. In other words, the thesis promotes users' autonomy and options online that correspond with the offline ones (i.e. freedom of testation, see section 1.5. and 2.8.). The provisional solutions are suggested herein having this focus in mind. However, this is not to say that some other legitimate interests should be disregarded. These interests are referred to in section 1.5. and the solutions in this chapter account for them too.

6.1. Summary of findings in the previous chapters

The analysis in this thesis results in a number of interim findings, all aiming to answer the primary research question, i.e. whether digital assets transmit on death, and if not, whether they should transmit.

6.1.1. Definition and value of digital assets

Chapter 1 provided initial observations on the methodology of the thesis, canvassed key stakeholders to be considered, provided a definition and explored the value of digital assets. The chapter finds that the definition of digital assets does not create an issue for the purpose of this thesis. It does, however, deserve some consideration

[1] L. Lessig, *Code, version 2.0* (New York: Basic Books, 2006).

and the chapter proposes a refined definition, distinct from the ones suggested in the literature before (section 1.1.3.). Finally, using the expert observations, economic and personal value of digital assets, the chapter demonstrates why it is important to look at digital assets and their transmission on death, from an academic perspective. Some of these reasons include: the growth of the value of digital assets (both personal and economic); future research that could use transmission on death as an example for other types of transmission, such as divorce, bankruptcy, etc. Importantly, the research on digital assets offers significant findings of the nature of property in the digital age as property and wealth increasingly move from physical to intangible and informational.

6.1.2. Problems with conceptions of property

First, the significant interim finding in chapter 2 is that property as a concept is extremely difficult to define and explain and its conceptions and incidents vary by legal system. However, based on Honoré's and Becker's theories, the chapter finds common elements in the rights of use, and the rights to control, transfer, abandon and possess property (section 2.2.).

Second, the analysis in this chapter, as well as in the case study chapters, adopts the bundle of rights theory, presented and understood as a Hohfeldian-Honorian bundle of jural correlatives, opposites and incidents (section 2.2.1.). The chapter identifies the most significant economic features of objects of property, used later in the thesis, i.e. rivalrousness, excludability, permanence (temporality) and interconnectivity.

Third, the discussion in this chapter also identifies the general conceptual differences in conceiving property in common and civil law families, and using some representative examples, finds common themes and legal transplants, used in chapter 3, for instance (section 3.6.3.). The chapter also assesses which legal system would be more susceptible to the inclusion of new objects of property, concluding that the US one is the most likely answer (sections 2.3. and 2.7.1.).

Finally, the chapter discussed the relevant differences between contracts (and obligations) and property, concluding that property differs from obligations, *inter alia*, in that it is always transmissible to heirs on the owner's death.

6.1.3. Problems with justifications of property

The thesis identifies in chapter 2 (section 2.6.) what theories indicated ought to be property, using arguments from the three prevailing western theories, namely, labour, utilitarian and personhood theory. These theories are used later in this chapter when discussing the propertisation of information and personal data, and further in the case study chapters, when evaluating whether there should be property in the chosen digital assets.

The author did not take any stance in the normative regard at that point, as the aim was to assess whether any of these theories can justify property in information, personal data and specific digital asset contents. The analysis finds that none of these theories is suitable to justify the propertisation of information, personal data and the corresponding content of digital assets (see section 2.7.4.).

6.1.4. Property in information and personal data

The thesis considers whether information (not protected by copyright) and personal data are/should be property and whether they transmit on death. This is significant because a large number of digital assets arguably consist of mere information and personal data, in addition to original material potentially protected by copyright.

The doctrinal and normative analyses find that information and personal data should not *per se* constitute property. This is significant as it implies that digital assets composed solely of information and personal data, unless protected by copyright, will not transmit on death.

However, this does not mean that information (e.g. of a personal character) cannot be protected post-mortem. The main difference here is the one between protection by bestowing ownership and protection by allowing rights to control information, as in data protection regimes. Normally, the latter protection does not extend after death. Nevertheless, depending on the context of the digital asset, it is argued in chapters 3, 4 and 5 that some information does merit post-mortem protection and control. This finding feeds into the concept of PMP, discussed further below.

6.1.5. Case study findings – common and specific themes

Crucially, the analysis of case studies finds that there is not a clear answer such as 'all emails are property and therefore deserve to be transmitted while all social network accounts are not'. The thesis finds for the assets discussed in chapters 4 and 5 that the content associated with emails and social networks usually include copyright material; sometimes it consists of information and personal data only. Information is not usually seen as property, but there are exceptions (in the US, e.g. fresh news). Personal data is not regarded as property, but the data protection regimes give the living individuals some rights of control. There are also moves, as suggested by this author in her earlier work, to recast personal data as a commodity (see section 4.2.2.1.).

With regard to copyright, the thesis finds difficulties about published and unpublished copyright, focusing on unpublished content as digital assets specific. The problem with transmission of this content in the UK lies in limitations established in copyright law (sections 4.2.1. and 5.2.1.). A further problem with copyright is the requirement of originality, and the thesis finds that not all the VWs, social networks and email content will qualify for copyright protection due to the lack of originality.

The most clear-cut answer has been provided in the VWs case study. This case study differs from the other two, emails and social networks, in that VWs consist of three layers (developers' code, virtual items and IP rights of players) and they possess the characteristic of *environmentality*. The chapter finds that the first layer is indisputably owned by service providers and findings of copyright in chapters 4 and 5 can be applied to the third layer, i.e. the player's creations. The chapter focuses heavily on the second layer, suggesting a novel solution in the form of VWs user right (section 3.6.3.). It is suggested that any monetary benefits arising from this right are transmissible to the player's next of kin.

6.1.6. Problems with allocation of ownership by terms of service

Despite the rules of transmission of property on death, in practice, what often determines the issue of transmission of digital assets is the service provider's

contractual rules on allocation of ownership. In addition, as a practical matter, their rules on access to the deceased's account are also very relevant to consider.

Assessing the influence and potential problems of the terms of service of the main service providers, the thesis finds, across the case studies, that service providers expressly prohibit the transfer of account login details and the account itself. VWs service providers deny users ownership of virtual items in the second layer and their ToS are the least favourable for users. Email and social network providers, conversely, expressly recognise users' ownership of their content. All the service providers usually claim a world-wide, royalty-free and non-exclusive license to use and perform other actions with the content.

Further, email and social network service providers allow discretionary access for heirs to content in the accounts of deceased users, but no formal property right is recognised or transmitted. This is inconsistent with their declaratory recognition of users' ownership. None of the providers allows access to the whole account, invoking privacy protection and the US Stored Communications Act.

Google provides, exceptionally, for users' control over their content post-mortem with the Inactive Account Manager. Facebook has recently followed this lead, introducing Legacy Contact.

6.1.7. Post-mortem privacy

Across all the case studies, the analysis introduces the notion of post-mortem privacy, seen as a right to control privacy (personal data) after one's death online. This is one of the key novel contributions of the thesis. PMP serves as an argument against the default transmission of digital assets on death, using the rules of succession laws, and reflects the main underpinning principle of the thesis, i.e. user's autonomy. Therefore, the thesis argues that, akin to the extension of autonomy post-mortem in the form of a person's disposition of property, autonomy should equally extend after death in the form of PMP. Autonomy and privacy and inseparable concepts, and it is inconsistent that the law allows the extension of autonomy when it comes to property, and refuses it in the case of privacy and personhood.

Finally, despite all the issues identified in the thesis, the analysis established the answer to the principal research question, i.e. **digital assets can be transmitted on death** (albeit partially and using very specific mechanisms as suggested in section 6.2.

6.2. Solutions

This section will introduce solutions to the problems analysed in this thesis and summarised in the section above. These solutions are grouped into legal, code and policy ones.

First, existing policy, legal and technology solutions will be evaluated. Second, the section will suggest some tentative legal and code solutions, aiming to address the main findings of this thesis.

6.2.1. The existing and emerging legal solutions

In the first wave of legislation, more than twenty US states attempted to regulate the area of transmission of digital assets on death, starting from 2005. The states that enacted such law are the following: Connecticut (2005 law, mandating that e-mail providers should provide copies of all e-mails to the executor or administrator of a decedent's estate[2], Indiana (2007 law, requiring 'any person who electronically stores the documents or information of another person' to 'provide to the personal representative of the estate of a deceased person, who was domiciled in Indiana at the time of the person's death, access to or copies of any documents or information of the deceased person stored electronically by the custodian.')[3], Rhode Island (2007

[2] Conn. Gen. Stat. § 45a-334a.

[3] Ind. Code § 29-1-13-1.1.

law, referring to e-mail accounts only, as with the Connecticut statute)[4], Oklahoma (2010 law, referring to access to accounts on any social networking website, any microblogging or short message service website or any e-mail service websites)[5], Idaho (2011 law, based on the Oklahoma law, referring as well to accounts on any social networking website, any microblogging or short message service website or any e-mail service website)[6]. Other states are considering adopting similar legislation (Nebraska, for instance, based its 2012 bill proposal on Oklahoma and Idaho laws; Delaware is at the moment a step near the adoption of similar legislation).[7] We will probably soon witness other states enacting similar laws, based on the quoted examples. Some of the states have resisted passing similar legislation, however.[8]

In general, these laws seem to have been inspired by the publicity around the *Ellsworth* case and similar controversies, resulting in partial and responsive statutes, rather than being comprehensive and evidence-based. Some laws (e.g. the Oklahoma statute) grant the executor power to access digital assets only 'where otherwise authorized.' Therefore, it is imaginable that service providers would challenge these efforts to apply the law where it appeared to violate terms of service and the outcome is not always certain. There might also be jurisdictional clashes

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[4] Rhode Island General Laws Chapter 33-27.

[5] 'The executor or administrator of an estate shall have the power, where otherwise authorized, to take control of, conduct, continue, or terminate any accounts of a deceased person on any social networking website, any microblogging or short message service website or any e-mail service websites.' 58 Okla. Stat. Ann. § 269.

[6] Idaho Statutes § 15-3-715(28) and § 15-5-424(3)(z).

[7] See Death and Digital legacy 'Nebraska is Latest State to Address Digital Legacy' (20 February 2012)

http://www.deathanddigitallegacy.com/2012/02/20/nebraska-is-latest-state-to-address-digital-legacy/ accessed 15 May 2016; or generally see J Lamm 'February 2013 List of State Laws and Proposals Regarding Fiduciary Access to Digital Property During Incapacity or After Death' (*Digital Passing Blog* February 13, 2013) http://www.digitalpassing.com/2013/02/13/list-state-laws-proposals-fiduciary-access-digital-property-incapacity-death / accessed 15 May 2016.

[8] See Everplans 'State-by-State Digital Estate Planning Laws' https://www.everplans.com/tools-and-resources/state-by-state-digital-estate-planning-laws accessed 15 May 2016.

where the law of the state where the deceased died domiciled or resident was not the same as the law governing the service provider contract.[9]

The answer to this piecemeal legislation and possible conflicts of law may be harmonisation within the US. In July 2012, the US Uniform Law Commission formed the Committee on Fiduciary Access to Digital Assets.**[10]** The goal of the Committee is to draft an act and/or amendments to Uniform Law Commission acts (the Uniform Probate Code, the Uniform Trust Code, the Uniform Guardianship and Protective Proceedings Act, and the Uniform Power of Attorney Act) that will authorise fiduciaries to manage and distribute, copy or delete, and access digital assets. Starting from 2012, for the purposes of Committee meetings, The Fiduciary Access to Digital Assets Act has been drafted and published online on multiple occasions.[11] The draft from July 2014 aims to authorise fiduciaries to access, manage, distribute, copy or delete digital assets and accounts. It addresses four different types of fiduciaries: personal representatives of decedents' estates, conservators for protected persons, agents acting under a power of attorney, and trustees.

Although this initiative could be seen as an attempt to improve and develop the existing statutes trying to consider the full range of digital assets[12], there are still many open issues that the Committee needs to address. For instance, in the Prefatory Note

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[9] J Darrow and G Ferrera 'Who Owns a Decedent's E-Mails: Inheritable Probate Assets or Property of the Network?' (2006) 10 N.Y.U. J. Legis. & Pub. Pol'y Vol. 281, 297.

[10] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (July 2014) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADAA_Final.pdf accessed 15 May 2016.

[11] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Fiduciary Access to Digital Assets Act' (February 15-16, 2013 Drafting Committee Meeting) http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013feb7_FADA_MtgDraft_Styled.pdf accessed 15 May 2016.

[12] Ibid Section 2 (7) '(7) "Digital asset" means information created, generated, sent, communicated, received, or stored by electronic means on a digital service or digital device; the term includes a username, word, character, code, or contract right under the terms-of-service agreement." and "(9) "Digital property" means the ownership and management of and rights related to a digital account and digital asset.'

for the Drafting Committee in the February 2013 Draft, the drafters identify the most critical issues to be clarified, including the definition of digital property (section 2) and the type and nature of control that can be exercised by a fiduciary (section 4). It seems that some of the most controversial issues are being disputed within the Committee, such as clarifying possible conflicts between contract and executry law[13], and between heirs, family and friends.

The following version of the proposal, however, provides for fiduciaries access to all communications, including email contents and log information (unless prohibited by the decedent's will)[14], even in cases where this access conflicts with the ToS (for example, as seen in Yahoo!'s or Microsoft's ToS above). In these cases, the legislation adopted under the Act would trump ToS.[15] The deceased would be able to control this access by signing a separate set of terms and conditions provided by the service providers. Perhaps Google's IAM could be modified to meet this requirement. Google could provide a separate set of terms signed digitally by a user when the user decides to set up his IAM. This way, the fiduciary would not be able to access his account, and his will would be executed through the IAM.

Apart from that, this new draft abandoned the digital property notion altogether and left only the digital assets, comprising both the content and the log information (information about an electronic communication, the date and time a message has been sent, recipient email address, etc.).[16] The ULC adopted this draft in July 2014, and a consensus seemed to have been achieved on its text. However, after a further

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[13] Ibid, Section 4 of the Draft reads 'Except as a testator otherwise provided by will or until a court otherwise orders, a personal representative, acting reasonably for the benefit of the interested persons, may exercise control over the decedent's digital property to the extent permitted under applicable law and a terms-of-service agreement.' This provision clearly favours terms of service agreements and lacks clarity for personal representatives.

[14] National Conference of Commissioners on Uniform State Laws (n 11).

[15] Ibid, s. 8 (3) (b) '(b) any provision in a terms-of-service agreement that limits a fiduciary's access to the 18 digital assets of the account holder under this [act] is void as against the strong public policy of 19 this state, unless the limitations of that provision are signed by the account holder separately 20 from the other provisions of the terms-of-service agreement.'

[16] Ibid, s. 2 (7) (8) 'Digital asset" means an electronic record. The term includes the catalogue of electronic communications and the content of electronic communications.'

round of lobbying caused by the industry's dissatisfaction with the draft, and resulted in a revised version of the UFADAA, adopted in December 2015.[17] This draft retained a similar definition of digital assets to that in the previous draft of the Act.[18] The biggest difference between the two texts is in recognition of PMP and technological solutions analysed in this thesis (Google IAM and Facebook Legacy Contact). The Act grants priority to service providers' terms or service and user choices over any other provisions, including the will.[19]

The final draft is, therefore, quite revolutionary and supports the main arguments in this thesis and those expressed in the author's earlier work, viz. PMP and code-law solution for the transmission of digital assets. It will be interesting to see whether the Act will achieve a wider adoption and application in the individual states, or even initiate efforts in other countries.

6.2.2. 'Code' solutions

'Code' or technology solutions, using the above mentioned Lessig's taxonomy, are online services aiming to assist in the disposition of digital assets on death. An emerging category of stakeholders is online services, which aim to help with the disposition of digital assets on death. They aim to shift the control of digital assets to users by enabling designation of beneficiaries who will receive passwords/content of digital asset accounts. This way, the services impliedly recognise users' property in digital assets and attempt to bypass restrictions imposed by terms of service, as summarised in the section 6.1.5. above.

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[17] see e.g. J Lamm, 'Revised Uniform Fiduciary Access to Digital Assets Act' (Digital Passing, 29 Sep 2015) http://www.digitalpassing.com/2015/09/29/revised-uniform-fiduciary-access-digital-assets-act/ accessed 10 February 2016

[18] National Conference of Commissioners on Uniform State Laws, Drafting Committee on Fiduciary Access to Digital Assets, 'Revised Fiduciary Access to Digital Assets Act' (December 2015) http://www.uniformlaws.org/Act.aspx?title=Fiduciary%20Access%20to%20Digital%20Assets%20Act,%20Revised%20(2015) accessed 10 February 2016 sec. 2(10)

[19] Ibid s. 4

These services, primarily US based, are categorised in this thesis as follows:

- *Digital wills* (Legacy Locker, now part of PasswordBox service,[20] Cirrus Legacy[21] or SecureSafe;i[22] these kind of services work on the principle that a user stores their account information and passwords, nominates a 'digital heir' or a beneficiary who will get access to this information; the beneficiary or someone else (such as e.g. Account Activator in SecureSafe) reports his death and provides a death certificate, and after a validation process the digital heir gets access to the account information);

- *Messaging services* (e.g. If i die – Facebook application, leaving messages to Facebook friends on death;[23] Dead Social – extending social network profiles (Twitter, Google + and Facebook) after death, enables scheduling of messages that are distributed post-mortem);[24]

- *Memorial and legacy websites* (e.g. BCelebrated - autobiographical legacy website, offers personalised memorial websites, protected private messages and emails, activated by chosen activators);[25]

- *Combined solutions* (offline and online services combined, e.g. My Digital Executor, involves 2 solicitors who keep email accounts, passwords and a list of digital assets, assets transferred in the form of codicil;[26] Final Fling –

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[20] Password Box, 'Legacy Locker' https://www.passwordbox.com/legacylocker accessed 15 May 2016.

[21] Cirrus Legacy, 'Making it easy for your guardians' http://www.cirruslegacy.com/139-guardians.html accessed 15 May 2016.

[22] Secure Safe, 'Questions about Data Inheritance' http://www.securesafe.com/en/faq/inheritance/ accessed 15 May 2016.

[23] ifidie, 'What happens to your Facebook profile if you die?' http://ifidie.net accessed 15 May 2016.

[24] DeadSocial http://www.deadsocial.org/ accessed 15 May 2016.

[25] BCelebrated http://www.bcelebrated.com/ accessed 15 May 2016.

[26] My Digital Executor http://www.mydigitalexecutor.co.uk/the-solution-2/ accessed 15 May 2016.

provides advice on living and dying well (funerals, celebrations, bereavement, treasure trove, wills, advance decision, safe deposit box and essential documents; wills printed out, signed and witnessed).[27]

Lamm *et al.* categorise these solutions somewhat differently, focusing on the character of actions they promise to undertake on death. Accordingly, they find four categories: services offering to store passwords; services facilitating administration of digital assets; services performing specific actions (e.g. removing all the data on behalf of a deceased person), and services that currently do not exist, but hypothetically provide their services through partnerships with service providers of the deceased's accounts.[28] This categorisation is very similar to the one used in this thesis, with the slight difference that it focuses on actions rather than on business models.

In their earlier work, Edwards and Harbinja evaluated some of the 'code' solutions and concluded that 'these are not themselves a foolproof solution'[29] for five main reasons:

- they could cause a breach of terms of service (due to the non-transferable nature of most assets, as suggested in the previous chapters);
- there is a danger of committing a criminal offence (according to the provisions of the anti-interception and privacy laws, see previous chapters);
- the services are inconsistent with the law of succession/executry (they do not fulfil requirements of will formalities; conflicts with the interests of heirs under wills or laws of intestacy may arise; jurisdiction issues etc.);

[27] Final Fling http://blog.finalfling.com/ accessed 15 May 2016.

[28] J Lamm et al. et.al. 'The Digital Death Conundrum: How Federal and State Laws Prevent Fiduciaries from Managing Digital Property' (2014) 68 U. MIAMI L. REV., 408.

[29] L Edwards and E Harbinja 'What Happens to My Facebook Profile When I Die?': Legal Issues Around Transmission of Digital Assets on Death", in C Maciel and V Pereira, eds, *Digital Legacy and Interaction: Post-Mortem Issues* (Springer 2013) 144.

- there are concerns over the business viability and longevity of the market and services;
- the issues of security and identity theft (the services store passwords and keys to valuable assets and personal data).[30]

Similarly, Beyer and Cahn, and Lamm *et al.* identify most of these problems.[31]

The issues are significant, and it is not recommended that the services are used in their current form and with the law as it stands now. However, with improvements in the services and their recognition by the law, they do have a potential to be used more widely in the future. In principle, the services are more suitable for the online environment, as they recognise the technological features of digital assets and enable an automatic transmission on death. Conversely, the issues surrounding them are numerous and complex, so the author does not envisage their legitimate reception in the near future, at least not outside the US, where the UFADAA might encourage their use.

The section, however, only briefly provided an account of these potential 'code' solutions, in order to demonstrate the myriad of directions any set of proposed solutions might take. It is a critical and complex area of study, and there is no room to explore it in full in this thesis.

6.2.3. Transmission of digital assets: novel solutions

6.2.3.1. Legal and policy solutions

The author rejects simply leaving the matter of regulating the transmission of digital assets on death to the market (as one of the regulatory modalities). The research in this thesis demonstrates problems for users and society with simply leaving the issue

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[30] Ibid.

[31] N Cahn, 'Probate Law Meets the Digital Age' (2014) 67 Vand. L. Rev. 1697, 1706; J D Lamm et.al. (n 25), 400–01.

to service providers' contractual conditions. It is argued that a legal intervention is required.

A legal solution should aim to recognise technology as a way of disposing of digital assets, as a more efficient and immediate solution online, one that recognises technological limitations, autonomy and the changing landscape of relationships there (co-constructed profiles and sharing, for instance, see sections 5.1. and 5.4.). This is not to say that the succession laws applicable to an estate should equally apply to digital assets. As concluded in the previous chapters, the content in digital assets is not always property *stricto sensu*, it is potentially protected by copyright as unpublished works, and it consists mainly of personal data and information. Therefore, the law should recognise this specificity and enable user's choice and transmission of copyrighted material and other content, where applicable. An example of this is the US UFADAA, analysed in the above section.

Chapter 3 introduces a solution distinct to the ones in the other case study chapters. Recognising the conflicting interests of the developers and players, in line with the doctrinal and normative analyses of virtual property and the phenomenon of *constitutionalisation* of VWs, the chapter proposes a novel compromise solution in the form of virtual worlds user right. This concept pertains to the second level virtual assets, and it transmits on death. It is law reform proposal and could be introduced by terms of service, i.e. internally to a VW, or could generally be mandated by the law.

Chapter 4 has identified difficulties around the transmission of copyright in unpublished works stored in digital assets (see section 4.2.1.). These difficulties can be resolved by explicitly allowing access to the account to a personal representative through terms of service, provided that the user has not requested deletion of the account (using code solutions discussed in the section below). In addition, copyright law that requires the unpublished works to be stored on a medium that would form a part of an estate should be amended and clarified (see sections 4.2.1. and 5.2.1.). One of the ways to clarify this is by inserting a provision into the UK Copyright, Designs and Patents Act, which mandates that this provision applies to digital assets and copyright in unpublished works is transmissible (as these are not tangible media or a part of an offline estate), provided that the user has not expressed a contrary wish pre-mortem (see more details on the law in section 4.2.1.).

Amendment of the probate and succession laws in England (as suggested at the beginning of this section) could be implemented through regulation, which would primarily amend the Wills Act 1837 and Administrations of Estates Act 1925, recognising digital assets as a specific part of the deceased's estate. This regulation could expressly recognise technological solutions, akin to the US Fiduciary Access to Digital Assets Act. The key issues with the UFADAA, though, is that the implementation of its solutions by states is required, in order to place all the users in a similar position with regard to their digital assets. An idea would also be to negotiate and recognise these solutions at the EU level, in order to harmonise the practice and law. However, there would be difficulties, as the EU does not have a capacity to impose solutions on property and substantive succession law matters (see sections 2.2. and 3.4.).[32] Nevertheless, given the global nature of these assets, their location and volume, harmonisation as a next step would be helpful.

It is also suggested that the data protection regime in the EU should recognise PMP. This can be done, for instance, by envisaging protection of the deceased's personal data in the member states legislation (akin to Estonia for instance, see section 2.8.), as the final text of the Data Protection Regulations permits member states to provide for such protection.[33] This protection could be time-limited (e.g. 50 years post-mortem) and again, recognise a user's autonomy and pre-mortem choice (e.g. by mandating the service providers to require the choice to be expressed during the registration process, or at some other appropriate occasion). This suggestion is very general and needs to be developed in more detail, in order to address some prominent

[32] The EU does not interfere with property rights of member states, art 345 of the Treaty on the Functioning of the European Union (Consolidated version 2012), OJ C 326, 26.10.2012. Regulation (EU) No 650/2012 of the European Parliament and of the Council of 4 July 2012 on jurisdiction, applicable law, recognition and enforcement of decisions and acceptance and enforcement of authentic instruments in matters of succession and on the creation of a European Certificate of Succession L 201/107. The Regulation deals with cross-border issues in succession and does not interfere with the substantive national succession laws, see e.g. Recital 15.

[33] Recital 27, Regulation (EU) 2016/679 Of The European Parliament And Of The Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), O.J. EU L 119/1.

issues, such as for instance, who would consent on behalf of the deceased for the processing of his personal data.

Finally, efforts of professional organisations and associations, such as STEP (an association of professionals working in the areas of family planning, including probate and succession laws)[34] should be considered, as they aim to harmonise the practice and raise awareness within the legal profession.[35]

6.2.3.2. Technology solutions revisited

In the first instance, the existing solutions for the transmission of digital assets within service providers (see chapters 3 and 4) should be developed, recognised and made more visible to their users. Service providers should amend their terms of service and make them more coherent with their post-mortem solutions. For instance, they should recognise transferability of content on death explicitly in their terms of service.

In VWs, these terms will allow personal representatives of a deceased user to access and recoup benefits arising from virtual world user right. Thus, a personal representative would be able to sell some of the valuable items a user left behind, e.g. through online auctions and pass the monetary value to heirs/beneficiaries.

Email providers should aim to make the provisions of their contract with users more coherent (those relating to ownership and the transfer of a user's content). In addition, given the prevalence of PMP, they should recognise this phenomenon more clearly in their terms of service. The user should be able to decide on the deletion of the content or leaving some of it to a beneficiary. Similarly, the visibility of these options

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[34] STEP 'About Us' http://www.step.org/about-us accessed 15 May 2016.

[35] E.g. in their working paper R Genders 'Fiduciary Management of Digital Assets' (Digital Assets taskforce for STEP (UK) Capacity SIG, Draft 29th April 2013) (on file with the author), they stated the following aims in relation to digital assets: 1. 'To create a best-practice template policy & protocol to be internationally and consistently adopted by online providers, to assist in the management of digital assets by fiduciaries. 2. To create draft legislation for adoption and harmonisation by state & national parliaments.' 2.

is important, and the user should be adequately informed, through terms of service and a special wizard or a window that would facilitate a user's choice.

In social networks and on Facebook, terms of service should explicitly state that a user's choice of Legacy Contact trumps the option of memorialisation and requests submitted by the next of kin or friends. Other social networks should follow Facebook's lead, in principle, enabling their users to decide whether they wish that their account is deleted on death or if they would like to leave some of their content to a beneficiary. This option should be visible, and users could, for instance, be required to go through a 'wizard' to check their post-mortem choice.

In relation to the suggested deletion of a user's content, it is worth noting that it does not mean deletion of all personal data and content associated with the deceased person, as this is, arguably, impossible. Rather, the deletion would be limited to a particular service and the user's account. Thus, in order to respect the rights of other users in their content, the deletion will not include, for instance, emails in another user's inbox or private messages sent on Facebook. This would be impractical and unfair to the recipient of the communication/content.

Finally, and as noted in chapters 4 and 5 (sections 4.3.1. and 5.3.1.), the current solutions (such as Facebook's Legacy Contact and Google's Inactive Account Manager) have been implemented mainly due to the pressure by the families of deceased users and the media. This pressure does not originate from the users themselves. The likely reason is the general reluctance of individuals to contemplate their death and the resulting fear that reminders of this sort would not bring good reputation to the providers. However, the market is moving towards providing some answers, and these efforts should be recognised and supported by policy and the law.

All these solutions are only tentative, however. They do originate from the analysis in this thesis, and the principles established herein will be used in the author's future research, which will aim to develop them further.

6.3. Next steps

In future research, the author will look at the issues of transmission of other types of digital assets on death (e.g. virtual currency, domain names). The author will continue evaluating the emerging market and legislative innovations in this area. In addition, more light will be shed on the criminal law and private international law issues.

The future research will look at substantive succession law in more detail and discuss the specific transmission techniques more extensively, using the considerations about the nature of digital assets set out in this thesis, where applicable.

The author also aims to assess the notion of digital wills and discuss technological solutions for the transmission of digital assets on death, which are places outside the specific service (outside Google, Facebook, Twitter platforms) and are independent from digital asset service providers (different digital wills, legacy lockers, depositories, see section 6.2.2.). These services and their compatibility with the law and with in-service solutions (such as Google Inactive Account Manager, see section 4.3.1.) had only been mentioned briefly in the concluding chapter and are worth exploring in future research, along with the general notion of digital wills. Finally, PMP concept will be developed further, as one of the author's primary research interests.

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