permanent five of the long-term benefits of amending the international law position.

F Conclusion

In conclusion, the international law on self-defence in light of imminent threats should be amended through a Security Council resolution that articulates the PRP. It is in the interests of the international community to have an effective clear constraint which contains contemporary threats. Additionally, it is in the permanent five's long-term interests, and undoubtedly part of their remit, to articulate a clear position which removes any possibility of pre-emptive self-defence to ensure the maintenance of international peace and security. Whilst the permanent five may be reluctant to alter the position, sound reasoning illustrates that the current state of international law regarding self-defence against imminent threats is ineffective and insufficient. A clearer position, which is effective in the contemporary international environment is necessary to promote international peace and security.

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Does the Common Law and Equity Provide an Adequate Framework for Digital Assets in Australia?

Joshua Mills*

This article explores the implications of a range of digital assets through a contemporary common law approach. It establishes the property status of digital assets by analysing historical concepts, in particular the juxtaposition between Blackstonian and Hohfeldian concepts of property. In establishing the potential of digital assets to be considered property it suggests new legal avenues for digital asset owners through application of traditional legal principles, causes of action and remedies regarding personal property. The article considers the potential of tort law and equity to provide an adequate legal framework striking a balance between digital asset owners, information technology service providers and third parties. It concludes with recommendations to encourage academic exploration of common law applications and endorses of legal mechanisms such as a tort of privacy, information fiduciaries and recognition of personal property rights in digital assets.

I INTRODUCTION

This article explores Australian law regarding 'Digital Assets', intangibles that are an artefact of digital technology and evolving social practice in our time but may be understood through reference to past law and principles.

The invention of the World Wide Web in 1989 by Tim Berners-Lee is a critical point in modern history and is recognised as a defining feature of the

Information Age.[1] A time period characterised by the shift from traditional industrial age technology to information technology e.g. computers, smart phones, high speed digital communications, and general digitalisation of traditionally tangible assets. The Information Age spans a time period beginning around 1968 and as of 2019, on-going. The Age presents new legal issues, as the interaction between law and the digital landscape creates unique challenges. With traditional legal conduct occurring via this medium (often slowly addressed through statute law reform) it is crucial to consider whether Australian law is capable of providing an adequate legal framework for the protection and management of intangible yet valuable assets/property.

In stating the goals of this article it is not intended to dismiss or diminish the many complex legal queries raised by digital, web-based information technologies, such as criminal conduct, privacy, jurisdictional issues, trademark, etc. This article demonstrates that evolution of legal principles into the digital sphere has the potential to mirror traditionally established areas of law; indeed many of the issues discussed indicate such a trajectory, with wills and estates, and property law in the process of such a transition.[2] That being said the focus of this article is on the personal property rights of individuals to various types of digital assets and the flow on effects of recognising the personal property status of digital assets. This article will seek to avoid analysis of issues beyond that, as they are deserving of their own comprehensive works.

A *What are Digital Assets?*

The umbrella term 'Digital Assets' is commonly utilised to collectively describe the plethora of assets, property and legal interests which exist and are facilitated by information technologies. The concept of digital assets has no standard legal definition and can vary widely, although a substantial definition within the Australian jurisdiction is provided the New South Wales Law Reform Commission's (NSWLRC) 'Access to Digital Assets upon Death or Incapacity' consultancy paper. Which states digital assets as 'any item of text or media that has been formatted into a binary source and over which a person may have some form of rights'.[3] For the purposes of this article the definition of the NSWLRC paper will be relied upon, as it encompasses both current and future forms of digital assets. It is important to proceed with a broad definition due to the rapid evolution and trends in information technologies. Although the future of such technologies is uncertain, the current interpretation and legal status on digital assets remain a proverbial digital wild west,[4] placing digital asset users at such a risk demands the attention of the law.[5]

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[1] Manuel Castells, *Information Age: Economy, Society and Culture* (Wiley-Blackwell, 2nd ed, 2010) 42-74.

[2] David Toole, Significant Focus on Digital Assets and Estate Planning in Australia (2018) BAL Lawyers <https://ballawyers.com.au/2018/11/01/significant-focus-digital-assets-estate-planning-australia/>.

[3] New South Wales Law Reform Commission, *Access to Digital Assets upon Death or Incapacity*, Consultation Paper No 20, 2.4.

[4] 'Taming the Digital Wild West' *The New York Times* (New York, 22 April 2014).

[5] Financial Action Task Force (FATF), *Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers* (2019). This publication by FATF develops and promotes

This article asks whether the common law and equity are capable of providing an adequate framework for digital assets? It answers that question by identifying key issues, principles and current/potential responses in several fields of law, such as property, equity and tort law. The following pages draw on theoretical scholarship but are primarily founded on engagement with historic case and statute law. That foundation reflects the reality that law reform in Australia, when addressing new social practices or technologies, is evolutionary rather than revolutionary: we are pragmatists who adapt existing law and discard what is no longer functionally or philosophically relevant.

This article will examine digital assets and the legal issues they raise regarding the proprietary rights and interests of individuals. The article begins with an analysis of the conceptualisation of property, with a particular focus on the contrasting concepts of Sir William Blackstone and Wesley Hohfeld. Secondly the article will draw on traditional legal principles from multiple fields of law, and analyse how such principles could be utilised or transcribed to the digital landscape. Ultimately concluding that traditional common law principles are uniquely positioned to address the challenges of digital assets, but given the stagnation of the courts, must be enabled by a flexible statutory enactment, or to borrow the words of former High Court Justice Dyson Heydon AC QC, 'Rigidity can bring strength, but it can also bring brittleness. And the abstract can be the enemy of the practical.'[6]

B *Scope of Digital Assets*

The scope of digital assets is broad and fluctuating as technologies advance and trends emerge, at the time of writing the potential digital assets of a person encompasses everything from emails, photos, media, domain names, metadata, blogs, and online accounts,[7] even SMS/MMS text messaging,[8] that are stored via a binary format in computers/phones/devices/hard drives/cloud

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policies to protect the global financial system against money laundering, terrorist financing and the financing of proliferation of weapons of mass destruction. Recommendations by FATF are recognised as the global anti-money laundering and counter-terrorist financing standard. The publication specifically addresses the potential criminal applications of Virtual Assets (primarily crypto-currencies) and establishes recommendations for the regulation of Virtual Assets across the globe but addressing not only the Virtual Asset Service Providers, but also any other official registered/licenced entities which engage with Virtual Asset activities e.g. financial institutions such as banks or security broker-dealers and like entities. The inter-governmental body of FATF highlights the necessity of clear and comprehensive regulation of Virtual Assets and by extension Digital Assets. The publication makes numerous recommendations to address criminal operations via Virtual Assets, such as, R1 – Risk Assessment Strategy, R2 – International Cooperation, R3-8 – Virtual Assets in the commission of certain crimes to be considered 'property' regardless of its value, R15 – Management and Mitigation of Virtual Asset Risks, and R30 – Regardless of jurisdictional classifications of property Virtual Assets identified or suspected of involvement in certain crimes are to be considered property within that jurisdiction's legal framework. In the absence of such systems criminal operations have been, and will continue to exploit both Virtual and Digital Assets to the detriment of global jurisdictions.

[6] Dyson Heydon, 'Modern fiduciary liability: the sick man of equity?' (2014) 20(10) *Trusts & Trustees*,1006 – 1022, 1012.

[7] A J Van Niekerk, 'The Strategic Management of Media Assets; a Methodological Approach' (2006) *Allied Academies*, New Orleans Congress.

[8] Spence M. Howden 'Text Messages as Property: Why You Don't Own Your Text Messages, but It'd Be A Lot Cooler If You Did' (2019) 76 *Washington and Lee Law Review* 1073.

storage/etc.[9] Examples include social media accounts like Facebook, Twitter and Instagram, video game items or virtual personas, cryptocurrencies like Bitcoin, cloud storage systems, online accounts with licensing agreements such as Netflix, music streaming services, iTunes, even SMS and MMS messaging.[10] Many of these examples are commonly interpreted as digital assets belonging to individuals,[11] however none of them are 'owned' in the traditional sense, e.g. these assets are not characteristic of traditional property and do not possess the established bundle of rights of traditional or tangible property.[12] These examples are often at the other end of the ownership spectrum, with substantial rights afforded to the host/service provider via end user licence agreements (EULA's) or service agreements, with little to no rights to the asset afforded to the individual. The trajectory of digital assets is discernible from its inclusion in wills and estates, and emerging businesses dealing exclusively with digital assets, for example video game boosting (paying for a skilled player to improve a certain statistical measurement reflecting the accounts skill/esteem) services or social media management businesses.[13] The reality is that the digital assets of individuals and businesses are increasingly a valuable asset in the Information Age and are an essential component of the digital economy. Digital assets are undoubtedly a critical component of modern economies, but current laws on digital assets often do not reflect this reality.[14]

II DIGITAL ASSETS AND AUSTRALIAN PROPERTY LAW

A logical starting point for addressing the legal issues raised by digital assets is to first assess whether such assets are capable of classification as property, in particular property over which an individual has clear enforceable exclusive rights.

As of writing it remains unclear whether digital assets are considered property in the same sense as legislation which governs the disposal of property, such as the *Succession Act 2006* (NSW),15 which in section 3 provides no clear definition of property but provides that property 'includes any valuable benefit'. 16 Accordingly encompassing intangible property such as copyright. Although many digital assets would fall under this definition, there are some which would be excluded via service agreements. An example would be Qantas frequent flyer points, which are non-transferable and cancelled upon the death of the user.17 From this example it is critical to assess whether digital assets either broadly, or specifically on a case by case basis, can be classified as property.18 To address this issue this article will closely examine common law

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[9] New South Wales Law Reform Commission, above n 3.
[10] Howden, above n 8.
[11] Van Niekerk, above n 7.
[12] *Yanner v Eaton* (1999) 201 CLR 351; *Minister of State for the Army v Dalziel* (1944) 68 CLR 261, 284 (Rich J).
[13] *SR Boosting* (Accessed 21 October 2018) SR Boosting < https://www.srboosting.com/>; *Hello Social* (Accessed 21 October 2018) Hello Social < http://www.hellosocial.com.au/>.
[14] New South Wales Law Reform Commission, above n 3.
[15] *Succession Act 2006* (NSW), s 3.
[16] Ibid.
[17] QANTAS, Frequent Flyer 'Terms and Conditions', (11/03/19) cl 8.3.
[18] For example, James Maree, Punit Jagasia, James Arvanitakis, 'Citizen or Consumer? Contrasting Australia and Europe's data protections policies' (2019) 8 *Internet Policy Review* 2. One of the most substantial international developments in recent years in relation to digital data (a foundational component of digital assets) is the European Union General Data

principles and concepts of property in an attempt to clarify current uncertainties in the law regarding digital assets.

A Property Rights in Digital Assets

The concept of property is often elusive,[19] with no definitive definition or exhaustive process by which the limitations of property might be observed, although it is generally described as a bundle of rights entitled to a bona fide person over an object or thing.[20] Much of the false thinking about property stems from the misconception that property is itself a resource,[21] rather than a legal relationship with a thing or object.[22] Property connotes a legal relationship between persons and objects or things, which waxes and wanes with societal influences. In other words, an object or thing is property when the legal relations of the individual and third parties recognise the legal rights one may or may not have over an object or thing. For this reason property is not inflexible or stationary and has been described as 'the relations between persons in relation to things',[23] necessarily the concept of property requires some degree of ambiguity in order for new things/objects to fall in or out of such a concept. The concept of property has been regarded this way for some time, as Jeremy Bentham observed,

> Property and the law are born together; take away laws and property ceases… Doubtless it is unwise to be dogmatic about the indicia of proprietary interest.[24]

The Australian courts have recognised and adopted some criteria to assist in determining and attributing property rights, but in heeding warnings like Bentham's, the courts often recognise such criteria as guideposts rather than fixed rules or indicia. These criteria are described by Blackburn J in *Milirrpum v Nabalco*,[25] and in the English case *National Provincial Bank Limited v Ainsworth*,[26] as the right to use or enjoy, the right to exclude others and the right to alienate.[27] In articulating this bundle of property rights Blackburn J clarifies that each of these rights is not a requirement of property nor that each of them may be varied or inapplicable, which suggests that these rights are merely a guidepost to whether an object or thing is capable of a proprietary

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Protection Regulation (GDPR). The GDPR has been identified as rights-based protection model, which enshrines the rights of citizens to autonomous control and access of their digital data. Critically the GDPR features rights such as, the right to access data (to use or enjoy), right to data transfer (alienation), and even the right to erasure (to exclude). Given the extent of rights granted by the GDPR through a property/privacy law nexus, academic observers have described the GDPR 'as granting quasi-property rights'; See also, Barbara Prainsack, 'Logged out: Ownership, exclusion and public value in the digital data and information commons' (2019) 6 *Big Data and Society* 1; Ira S. Rubinstein, 'Big Data: The End of Privacy or a New Beginning?' (2013) 3 *International Data Privacy Law* 2, 74-87.

[19] *Yanner v Eaton* (1999) 201 CLR 351, 365-6.

[20] Ibid.

[21] William Blackstone, *Commentaries on the laws of England: A Facsimile of the First Edition of 1765-1769* (University of Chicago Press, 1979) vol 2, 2.

[22] Wesley Hohfeld, 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1913) 23 *Yale Law Journal* 16; Wesley Hohfeld, 'Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1917) 26 *Yale Law Journal* 710.

[23] Felix Cohen, 'Dialogue on Private Property' (1954) 9 *Rutgers Law Review* 357.

[24] Jeremy Bentham, *The Theory of Legislation* (Kegan Paul Trench Trubner, 1911) 113.

[25] (1971) 17 FLR 141, 171.

[26] *National Provincial Bank Limited v Ainsworth* [1965] AC 1175, 1247-8.

[27] *Milirrpum v Nabalco* (1971) 17 FLR 141, 171.

interest.[28] Applying these rights to digital assets may yield persuasive evidence which supports a variety of digital assets being property in the traditional legal sense.

Firstly, the right to use or enjoy. Often the answer to this question hinges on the specific terms of the agreement between user and provider, which feature common requirements in order to maintain the intended purpose of the service. Aside from these requirements it has been noted that 'it was not necessary that the dominion of the owner be absolute or fixed', in order for proprietary interest to exist.[29] This is a key observation in favour of many digital assets being understood in terms of property rights as the presence of third-party hosts/providers does not wholly extinguish the property rights of users.

Secondly is the right to exclude others, which is a right in personam or private right of the owner exercisable against the general public and State.[30] A property right may differ in form or function depending on the type of property, often looking to the statutory framework and common law regarding a particular type of property. An example of such a process is clearly demonstrated in the High Court judgement *Yanner v Eaton*,[31] that considered the proprietary interest of wild animals under the *Fauna Conservation Act 1974* (Qld). This process is noteworthy as the absence of a statutory framework for digital assets jeopardises the proprietary status and interests of digital asset users. This has led to uncertainty regarding property rights, specifically in applying rights to particular types of digital assets and if any variation of those rights is necessary.[32]

Thirdly is the right to alienate, also referred to as a right to assign or transfer the ownership and associated rights from one individual to another. This is a characteristic right of property, in order for an individual to alienate property, that individual must possess the highest degree of authority and control over the object to be alienated. However such a right is recognised by Mason J in *R v Toohey; Ex parte Meneling Station Pty Ltd*,[33] as a non-essential component of property, similar to other rights mentioned there are circumstances under common law and statute which render a proprietary interest inalienable.[34] However there are some digital assets which understandably may be inalienable such as the previous example of Qantas frequent flyer points, or intrinsically personal and private digital assets such as Cloud Storage accounts. Other digital assets of significant value may not only be practical to alienate, but also of significant public benefit such as a Bitcoin donations to charities.[35]

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[28] Ibid.
[29] *Wily v St George Partnership Banking Ltd* [1999] FCA 33, 30-3 (Finkelstein J).
[30] *Milirrpum v Nabalco* (1971) 17 FLR 141, 171; Australian Constitution s 51(xxxi).
[31] *Yanner v Eaton* (1999) 201 CLR 351.
[32] Australian Law Reform Commission, 'Traditional Rights and Freedoms – Encroachments by Commonwealth Laws' *Australian Law Reform Commission* (2014) Interim Report 127, 180-3.
[33] *R v Toohey; Ex parte Meneling Station Pty Ltd* (1982) 158 CLR 327, 342-3.
[34] *Re Potter (decd)* [1970] VR 352; *Local Government Act 1993* (NSW) s 45.
[35] Jeff John Roberts, 'Bitcoin Donations Soared 10 Fold Last Year, Fidelity Says.' Fortune.com < http://fortune.com/2018/02/14/bitcoin-charity-donations-soared-10-fold-last-year-fidelity-says/>.

B Tangibility of Digital Assets, is it Property?

The conceptualisation of property has had many forms throughout legal history from Locke (1632-1704) to Bentham (1748-1832) and beyond, with the two most notable being attributed to Sir William Blackstone and Wesley Hohfeld which together strike a fascinating juxtaposition. The former's concept of property is one of physicality, property is an assignable legal right which may be attached to an object in such a way that the owners physical dominion over the object is absolute, so as to exclude all others.[36] Blackstone's concept of property was founded on Roman law. It was the dominant view in Anglo-Saxon jurisprudence for roughly 144 years, until the publication of Wesley Hohfeld's 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1913),[37] which has been recognised as the most comprehensive and compelling work on proprietary legal rights and liberties and the legal relations they create.[38]

Hohfeld's concept of property is distinct from Blackstone's, defining property as a legal creation concerned with the 'relations between persons in relation to things',[39] which rejected Blackstone's conceptual basis of property as a characteristic assigned to things or objects. In the nineteenth century the English courts had grappled with the issues created by Blackstone's concept of property, where no tangible thing or object existed with which to affix the legal rights and interests. At the time the question was whether Trade Marks and Trade Secrets,[40] which had no physical form with which to tie legal relations to, were capable of proprietary status and thus entitled to the legal rights and protections of property law. The gradual acceptance of intangible property by English courts and ultimately the western world over the course of the nineteenth century may have been the catalyst for the ensuing property paradigm shift.[41] In that paradigm the Blackstone conceptualisation of property was superseded by Hohfeld's, which has played a key role in redefining the scope of property as a concept, as it aggregated and solidified a shift in jurisprudence, and paved the way for the proliferation of intangible property interests and rights.

The ripple effects of this paradigm shift are observable in the Information Age,[42] as the debate over the proprietary status of new intangibles ramps up the global jurisprudence teeters on the edge of recognising another form of intangible property, collectively known as digital assets. As established in preceding pages it is within the scope of the current concept of property to recognise digital assets as a new form of intangible property, entitled to same legal rights and protections as traditional intangibles and tangible property.

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[36] Australian Law Reform Commission, above n 33, 460-2.
[37] Wesley Hohfeld, 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1913) 23 *Yale Law Journal* 16.
[38] Australian Law Reform Commission, above n 33, 40; *Yanner v Eaton* (1999) 201 CLR 351, 388-9.
[39] Felix Cohen, 'Dialogue on Private Property' (1954) 9 *Rutgers Law Review* 357.
[40] *Singleton v Bolton* (1783) 99 ER 661; *Morison v Moat* (1851) 68 ER 492.
[41] *Wily v St George Partnership Banking Ltd* [1999] FCA 33, 31-5 (Finkelstein J); Wesley Hohfeld, above n 38.
[42] Manuel Castells, Above n 2.

There is even persuasive evidence to suggest some particular digital assets are already recognised as personal property, one such example is that of social media accounts with anecdotal and substantive evidence. Firstly, the treatment of Facebook profiles following the death of the user is characteristic of personal property in a number of ways. Facebook offers users several options for the management of their account in the event of their death, aside from immediate deletion the two main options offered to users is to memorialise the account or assign a legacy contact who can manage the deceased's account on their behalf.43 The availability of such services suggests Facebook profiles are entitled to the right of alienation, that is, the right to assign or transfer ones legal interest in a Facebook profile to another party. As established in this article there is no formulaic concept of property,44 no exhaustive statutory definition, nor is there a particular set of legal rights which establish it.45 From a Hohfeldian perspective, Facebook profiles, and by extension other social media systems, which possess legal relations, are more likely than not to satisfy proprietary status in society and the courts. Secondly, the increasing utilisation of social media data in litigation proceedings, often as adduced evidence,46 gives further weight to social media profiles as important and valuable personal property. Counter-arguments to the notion of social media as property often focus on the unprecedented new technology while neglecting the underlying conduct remains substantially the same as traditional mediums, of which the common law is all too familiar.47

In the 'Illusion of Newness: The Importance of History in Understanding the Law-Technology Interface' Lyria Bennett Moses recognises a tendency of legal scholarship and policy makers to overlook historical precedent in favour of technology specific problem solving.48 Given the medium which new legal issues arise is unprecedented, as is the case with digital assets; however this does not necessarily mean the manifested legal problems are new or deserving of a neophobic response. The common law has grappled with intangible property rights for some time, a popular case demonstrating the dissemination of property rights, both tangible and intangible, is found In re Dickens; Dickens v Hawksley.49 The case considered the property rights of Charles Dicken's heirs, with his sister-in-law inheriting the tangible property of his works and manuscripts, while his children inherited the intangible copyright in those works.50 This case serves as a demonstration of law recognising and separating rights regarding intangible and tangible property, something which is neither unique nor native to social media systems, but has a rich history of precedent from which rights and obligations can be drawn.

III TORT LAW AND DIGITAL ASSETS

43 Facebook, Memorialised Accounts https://www.facebook.com/help/1506822589577997.
44 *Milirrpum v Nabalco* (1971) 17 FLR 141, 171.
45 Ibid.
46 *Crosby v Kelly* [2013] FCA 1343, 2; *X v Twitter Inc* [2017] NSWSC 1300.
47 Lyria Bennett Moses; Nicola Gollan, 'The Illusion of Newness: The Importance of History in Understanding the Law-Technology Interface' [2015] *University of New South Wales Law Faculty of Law Research Series* 71.
48 Lyria Bennett Moses; Nicola Gollan, above n 48.
49 *In re Dickens; Dickens v Hawksley* [1935] Ch 267.
50 Ibid; Lyria Bennett Moses; Nicola Gollan, above n 48.

Having established the potential for digital assets to be recognised by law as personal property, this article also considers the ramifications which may flow on from this proposition. Property is a longstanding cornerstone of western legal systems, accruing over centuries a unique position within the common law, with several legal disciplines developing unique principles and rules for the management and protection of property. One such area of law which has developed in this way is tort law, or the law of obligations, which serve to protect the rights of individuals in land, goods and the person.[51] Although there is little case law on tortious digital assets,[52] this section will seek to analyse the underlying principles of established torts and infer these principles application to digital assets.

The scope of torts is intentionally ambiguous, a reoccurring theme when examining common law principles such as those regarding property, as such torts have been described simply as 'an act or omission by the defendant, constituting an infringement of a legally recognised interest of the plaintiff giving rise to a right of civil action'.[53] While this definition and others are not exact or exhaustive it does suggest some key aspects which must be satisfied in order for a claim under tort to be successful.[54] The key aspects of this definition which must be satisfied to invoke the aide of torts are; an act or omission either intentionally or negligently, the interference of that act or omission, with the legally recognised interest of the plaintiff.[55]

Although the first two aspects are easily satisfied by many digital asset issues, for example the former would apply where an online account is hacked or jeopardised on unsecure systems, and the latter where online accounts are banned/suspended as a result of third party access. The third aspect presents a unique difficulty for digital assets, as they are currently not recognised in Australia as a legal interest of individuals but as this article has already discussed this may change/be in the process of changing.

A Torts to Goods

The nature of digital assets attracts primarily the torts in respect of goods, which is distinct from both torts to person and torts to property, as torts to goods apply to the personal property of individuals and any interference with the lawful owners possession of an object or thing by a third party. Torts to goods primarily concern the three torts of trespass, conversion, and detinue,

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[51] Bernadette Richards, Melissa De Zwart, Karinne Ludlow, *Tort Law Principles* (Thomson Reuters, 6th ed, 2013) ch 3-6.

[52] See, eg, Spence M. Howden 'Text Messages as Property: Why You Don't Own Your Text Messages, but It'd Be A Lot Cooler If You Did' (2019) 76 *Washington and Lee Law Review* 1073, 1081-1088. Howden identifies a common theme amongst digital assets; that the generation of SMS and MMS messaging (or almost any digital asset) is a by-product of a contractual service agreement and as a result is incapable of being legally 'owned' in the same sense as traditional forms of property. The opposing view to this reasoning is the dominant argument of this article, that digital assets, including SMS and MMS messages are more than mere contractual by-products but are intangible personal property in their own right. And as a result are should be afforded the legal protections and rights discussed in this article.

[53] Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 51, 4.

[54] Australian Law Reform Commission, 'Serious Invasions of Privacy in the Digital Era' [2014] *Australian Law Reform Commission* 123, 69; Prue Vines, 'Introduction' in Carolyn Sappideen and Prue Vines (eds), *Fleming's The Law of Torts* (Lawbook, 10th ed, 2011) 3.

[55] Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 51, 4-5.

with occasional variation in remedies or damages in certain circumstances.[56] This section of the article will analyse each of these three torts to goods and assess their application to digital asset issues.

The common law has held that trespass to goods generally requires 'an act of the defendant which, whether intentionally or negligently, directly interferes with the possession of the good which the plaintiff enjoys at the time of the act.'[57] A key aspect of this definition of trespass to goods is possession, which requires the plaintiff to establish their possession over a good in order to satisfy the plaintiff's standing to sue. This requirement of possession presents a unique challenge when attempting to apply principles of torts to goods to a variety of digital assets, as an intangible asset the actual possession of digital assets is often held by the service providers in trans-jurisdictional servers.

There are identifiable exceptions which may circumvent the possession requirement, firstly there are cases suggesting rare exceptions to the possession requirement, such as trespassory acts to goods belonging to a deceased estate prior to the dispensing of goods to successors,[58] or trustees suing for trespass to goods possessed by a beneficiary.[59] The cases of *Burnard v Haggis*,[60] and *Dunwich Corp v Sterry*,[61] are important exceptions to the possession requirement as they recognise the legal interests of individuals who do not hold possessory entitlements to a good, yet were able to sue for trespass. For digital assets this may mean that an individual without possession of the digital assets may be able to sue for trespass to goods provided the plaintiff can demonstrate an alternative legal interest.

Conversion is another tort to goods that may have applications to digital assets; it has some overlap with both trespass and detinue but remains a distinct tort to goods. Unlike trespass, conversion does not require actual or implied possession of the good to establish a cause of action in tort. In *Penfolds Wines*,[62] torts to goods were considered in detail by the High Court, with Latham CJ aggregating many definitions of conversion in an attempt to capture the essence of conversion, identifying

> the grievance in conversion is the unauthorised assumption of the powers of the true owner. Actually dealing with another's goods as owner, for however short a time and however limited a purpose, is therefore conversion.[63]

The common law has recognised constructive or immediate possession as fulfilling the possession requirement,[64] and that a proprietary interest is sufficient in order for conversion to be accepted as a valid cause of action by the courts.[65] This is a critical observation in favour of conversion's application

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[56] Ibid, 84.
[57] Ibid, 87; *Penfolds Wines Pty Ltd v Elliot* (1946) 74 CLR 204.
[58] *Burnard v Haggis* (1863) 14 CB (NS) 4-5.
[59] *Dunwich Corp v Sterry* (1831) 109 ER 995.
[60] Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 52, 110.
[61] Ibid.
[62] See, *Penfolds Wines Pty Ltd v Elliot* (1946) 74 CLR 204.
[63] Ibid, Latham CJ.
[64] Ibid, Latham CJ; *Johnson v Diprose* (1893) 1 Q.B. 512, 516.
[65] *Hunter BNZ Finance Pty Ltd v Mahoney* [1990] VR 41; Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 52, 97-98.

to digital assets, as a proprietary interest such as the interest established in Part Two is sufficient to enable a cause of action under conversion.
The third and final tort to goods identified by this article as possessing potential applications to digital assets is detinue, which shares some similarities with conversion in respect of unreasonable refusal to return goods to the plaintiff who has a proprietary interest or immediate possession entitlement over the good which is stronger than the defendants.66 But the tort of detinue is also broader in scope and the remedies it provides than conversion, and critically arises against a defendant who no longer has possession of the good at the time of the plaintiffs demand for return.67

Detinue arises in three ways which are distinct from conversion. These are, when the defendant has lost possession of a good prior to the conversion of it,68 where the defendant has deviated from the terms of the agreement and in the course of the deviation the goods have been lost or destroyed,69 and where the goods have been lost or destroyed by the defendant's negligence.70 The tort of detinue with its reduced emphasis on possession, broad scope and distinct remedies would be capable of providing a cause of action for digital asset owners in common circumstances where their digital assets are withheld, lost or destroyed.

In conclusion, the application of current torts to digital assets is questionable, perhaps due to the historical origin of many property torts rooted in the Blackstone conceptualisation of property. With a physicalist concept of property many of the principles of conventional property torts are limited or centralised to tangible property, ultimately lacking the Hohfeldian concept of property on which property rights in digital assets relies.

This section has analysed some rare exceptions to physicalist principles which suggest the application of conventional property torts to digital assets while not impossible, would require significant and undesirable alterations. In recognition of this issue the common law jurisprudence has suggested a new tort for the invasion of privacy, this suggestion will be discussed in detail below.

B The Privacy Tort and Digital Assets

Having established some significant issues with the application of conventional property torts to digital assets in the Australian jurisdiction is it unsurprising to find other jurisdictions have developed and applied a new tort for the invasion of privacy. Such an invasion might involve abuse of digital assets. Many other common law nations have developed and implemented some form of common law civil action for serious invasions of privacy, with the US, UK, Canada and New Zealand developing their own unique approach.71

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66 Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 52, 111-2.
67 Ibid.
68 See, eg, *JF Goulding v Victorian Railways* (1932) 48 CLR 157.
69 See, eg, *Lilley v Doubleday* (1881) 7 QBD 510.
70 *Houghland v RR Low (Luxury Coaches)* [1962] 1 QB 694; Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 52, 111-2.
71 Australian Law Reform Commission, 'Serious Invasions of Privacy in the Digital Era' [2014] *Australian Law Reform Commission* 123, 21-25.

Although Australia does have some protections for privacy which apply in limited ways to digital assets, [72] there remains no common law cause of action for breaches of privacy. In *ABC v Lenah Game Meats*,[73] the High Court was asked to consider whether the common law of Australia recognises a tort of privacy as a valid cause of action. Ultimately the specifics of the case led to the High Court restraining itself from a decisive position on the existence of a tort to privacy. But the case does provide an authoritative aggregation of arguments for and against the creation of a tort to privacy and remains the preeminent High Court case on the subject. Many of the individual judgements recognise international developments of common law causes of action for breaches of privacy,[74] while also identifying *Victoria Park Racing & Recreation Grounds Co v Taylor* [1937] HCA 45 as the authority restraining similar developments in Australian law.[75]

The Australian High Court judgment *Victoria Park Racing v Taylor* has played a pivotal role in the development of Australian common law regarding property and property rights,[76] but has also supressed the development of privacy protections within the Australian jurisdiction.[77] Since the 1937 decision Australia's common law has lagged behind other common law nations, this is generally due to the Justices of the Court correctly observing that at the time there existed no common law right to privacy.[78] In *ABC v Lenah Game Meats* the High Court identified some key misconceptions about *Victoria Park Racing* which has subsequently led to reconsideration of a common law tort to privacy, with some lower courts recognising the existence of such a tort.[79]

Firstly, in *Victoria Park Racing*,[80] and also in *ABC v Lenah Game Meats* the judgements considered whether a common law tort to privacy existed and if so, did that right apply to corporate entities.[81] Critically neither case considered the existence of an individual person's protection of privacy via a common law mechanism such as a tort to privacy. It was even identified in *ABC v Lenah Game Meats*, that public policy interests in corporate

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[72] See, eg, *Privacy Act 1988* (Cth), pt III.
[73] See especially, *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* [2001] HCA 63.
[74] Ibid, 185-8; *Govind v State of Madhya Pradesh* (1975) 62 AIR(SC) 1378; *Aubry v ...ditions Vice-Versa Inc* [1998] 1 SCR 591; *Klissers Farmhouse Bakeries Ltd v Harvest Bakeries Ltd* [1985] 2 NZLR 129; *Tucker v News Media Ownership Ltd* [1986] 2 NZLR 716; *Bradley v Wingnut Films Ltd* [1993] 1 NZLR 415; *TV3 Network Services Ltd v Fahey* [1999] 2 NZLR 129; *P v D* [2000] 2 NZLR 591.
[75] See especially, *Victoria Park Racing & Recreation Grounds Co Pty Ltd v Taylor* [1937] HCA 45.
[76] Ibid.
[77] See, eg, *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* [2001] HCA 63; *Govind v State of Madhya Pradesh* (1975) 62 AIR(SC) 1378; *Aubry v ...ditions Vice-Versa Inc* [1998] 1 SCR 591; *Klissers Farmhouse Bakeries Ltd v Harvest Bakeries Ltd* [1985] 2 NZLR 129; *Tucker v News Media Ownership Ltd* [1986] 2 NZLR 716; *Bradley v Wingnut Films Ltd* [1993] 1 NZLR 415; *TV3 Network Services Ltd v Fahey* [1999] 2 NZLR 129; *P v D* [2000] 2 NZLR 591.
[78] Above n 76.
[79] See, eg, *Grosse v Purvis* [2003] QDC 151; *Doe v Australian Broadcasting Corporation* [2007] VCC 281.
[80] Above n 76.
[81] *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* [2001] HCA 63, [111], [126-32] (Gummow and Hanye JJ).

transparency, freedom of political communication,[82] or qualified privilege information are incongruent with the concept of corporate privacy.[83]

Secondly, another misconception regarding *Victoria Park Racing* was that it decisively extinguished or precluded a tort to privacy.[84] Instead, it has been observed the judgement rejected the proposition that under the head of nuisance the law recognised a right to privacy as a valid cause of action. And that the proposition of a tort to privacy was still open to deliberation in future proceedings;[85] such a position is supported by Murphy J identifying 'developing torts such as unjustified invasion of privacy' in *Church of Scientology v Woodward*.[86] While the Australian jurisprudence would undoubtedly contribute its own unique characteristics to the development of a tort to privacy, it would not do so without careful consideration of international common law jurisdictions. It is therefore important to analyse these international developments to understand the potential form, function and scope of a tort to privacy in Australia.

Although the Australian jurisprudence has been hesitant to recognise a common law protection of privacy many international common law nations have surged ahead with a variety of unique legal mechanisms for the protection of individual privacy. Perhaps even more uniquely many international developments are a direct result of common law evolution, whereby judicial innovation has resulted in substantive change instead of statute led initiatives.[87] For the purpose of relevance analysing the variety of torts to privacy across other jurisdictions will be supplemented by analysis of the authoritative UK case that considered the application of the tort to privacy to a digital asset. In *Vidal-Hall v Google*,[88] Tugendhat J considered the application of a tort to privacy to a metadata collection process. The plaintiff submitted that the defendant (Google) had committed a tortuous act in collecting the metadata of the plaintiff and utilising that data to sell targeted and personalised advertisements to the plaintiff, claiming damages for distress. The case built upon and solidified previous UK judgements which affirmed the existence of a tort of misuse of private information such as *OBG Ltd v Allan* and *Douglas v Hello*!.[89]

Tugendhat J differentiated the tort to misuse of private information from other legal causes of action, namely a breach of trust and confidence under equity, which his honour held as characteristic of confidential information and thus distinct from private information.[90] The judgement also recognises common law protections of privacy, including the tort to privacy, are not well settled in law and continue to rapidly develop.[91]
Although not binding on Australia the UK's common law developments have provided the jurisdiction with a starting point from which to build a sturdy

[82] Ibid, [217] (Kirby J).
[83] Ibid, [340-2] (Callinan J); Ibid, [190] (Kirby J).
[84] Ibid, [105-111] (Gummow and Hanye JJ).
[85] Ibid; Professor W L Morison, New South Wales Parliament Report on the Law of Privacy, Paper No 170, (1973), para 12.
[86] *Church of Scientology v Woodward* [1982] HCA 78, [13] (Murphy J).
[87] Above n 78.
[88] See especially, *Videl-Hall v Google* [2014] EWHC 13 (QB).
[89] *OBG v Allen and Douglass v Hello!* [2008] 1 AC 1.
[90] *Videl-Hall v Google* [2014] EWHC 13 (QB), 65-71.
[91] Ibid, 59; *Campbell v MGN Ltd* [2004] UKHL 22, [11-14] (Lord Nicholls).

common law framework for the management and protection of digital assets. A benefit of Australia's stagnation regarding digital assets is a wealth of international models, both statutory and common law, which can be drawn upon and analysed to provide the best possible legal framework for digital assets. But as this article continues to demonstrate the Australian legislature and judiciary need to take action before the detriments of delay outweigh the benefits.

IV EQUITY AND DIGITAL ASSETS

The legal entity of equity provides an alternative avenue for the protection and management of digital assets, one which is not constrained by property conceptualisation or fixated on the tangibility of goods/property.

A The State of Australian Equity

Equity is an elusive legal concept originating in the English Court of Chancery, the conceptualisation of equity has been described as measuring the chancellor's foot,92 with foot being the conscience of the Chancellor. Modern equity concerns itself with the rigidity and harshness of the common law and will seek to aid those whose trust and confidence leave them vulnerable to the common law pursuant to principles of conscience, fairness, equality and discretion.93 Despite criticisms equity has grown over time, developing its own unique principles and remedies, ultimately becoming a distinct and important area of law. Today equity is a profoundly powerful and flexible legal instrument of common law systems such as England, Australian, New Zealand and Canada.94 Within the Australian jurisprudence there are few areas of law that generate as much passion and reverence as equity, demonstrable through generations of High Court Justice's handling of equity with delicacy and enthusiasm.95

B Equitable Interest in Digital Assets

The application of equitable principles and remedies to proprietary rights in digital assets relies on the specific digital asset satisfying at least one of the four kinds of equitable interest, these are:

Equitable Proprietary Interests in specific property;

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92 Frederick Pollock (ed), The Table Talk of John Selden (Quaritch, 1927) 43.

93 Anthony Mason, 'The place of Equity and Equitable Remedies in the Contemporary Common Law World' (1994) 110 *Law Quarterly Review* 238, 239.

94 R P Meagher, J D Heydon and M J Leeming, Meagher, Gummow and Lehane, *Equity, Doctrines and Remedies* (Butterworths LexisNexis, 4th ed, 2002) vii.

95 Sir Frank Kitto, Forward to the First Edition, R P Meagher, W C M Gummow and JR F Lehane, *Equity Doctrines and Remedies* (Butterworth Sydney 1st ed, 1975) vi; Anthony Gleeson, 'Australia's Contribution to the Common Law' (2008) 82 *Australian Law Journal* 247; Anthony Mason, 'The Place of Equity and Equitable Remedies in the Contemporary Common Law World' (1994) 110 *Law Quarterly Review* 238; Anthony Mason, 'Equity's Role in the Twentieth Century' (1997-8) 8 *The Kings College Law Journal* 1; Michael Kirby, 'Equity's Australian Isolationism' (2008) 8(2) *Queensland University of Technology Law and Justice Journal* 444; William Gummow, 'The Equitable Duties of Company Directors' (2013) 87 *Australian Law Journal* 753; Dyson Heydon, 'Modern Fiduciary liability: the sick man of equity?' (2014) 20 *Trusts & Trustees* 1006; James Edelman, 'A 'Fusion Fallacy' Fallacy?' (2003) 119 *Law Quarterly Review* 375.

> Mere Equities in specific property;
>
> Equitable Proprietary Interests in respect of, but not in, specific property; and
>
> Personal Equities, being equitable interests that are neither interests in, nor interests related to, specific property.96

Of the identified equitable interests i) and ii) generally concern themselves with interests in real property, i) is the strongest or most substantial equitable interest, illustrations of such interests are the interests of a beneficiary under a trust,97 the interest of a mortgagor in the mortgaged property,98 or the interest of a personal representative who has a lien on the assets of a deceased estate to satisfy his right of indemnity against those assets.99 While it remains a possibility for digital assets to be under i), it is unlikely to be an appropriate recognition of equitable proprietary interests in digital assets due to the intangibility and technicalities of digital assets. Similarly a mere equity in specific property generally concerns itself with equitable interests in real property, which the leading case on mere equities demonstrated in, *Latec v Hotel Terrigal.*100

The two remaining kinds of equitable interest concerns themselves with both real property and personal property, as this article has identified many digital assets are partially or wholly characteristic of personal property. The equitable interest in iii) is commonly illustrated by cases where a beneficiary to an administered estate of a deceased person, does not obtain a proprietary interest in any of the assets that comprise that estate.101 In other words the beneficiary of a deceased estate does not receive a proprietary interest in the assets of the deceased, but merely an equitable interest in the proper administration of the estate by the legal representative or administrator.102 Given the emergence of digital estate planning in recent years,103 such an equitable interest would effectively deal with the administration of deceased's digital assets according to their will. The Administration Acts do not specifically address the rights and powers of administrators to manage, access or otherwise administer the digital assets of deceased estates. 104 The combination of the equitable interest iii) and the statutory uncertainty of the Administration Acts regarding digital assets results in a substantially detrimental impact on the fiduciary obligations of estate administrators. Potentially causing significant delay, incurring additional costs for court orders to access digital assets, or improper/incomplete administration of the

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96 Denis Ong, *Ong on Equity* (Federation Press, 2011) 1; *Phillips v Phillips* (1862) 45 ER 1164, 1167.
97 *Baker v Acher-Shee* [1927] AC 844.
98 *Casbourne v Scarfe* (1737) 26 ER 377.
99 *Dowse v Gorton* [1891] AC 190; *Vacuum Oil Company Proprietary Limited v Wiltshire* (1945) 72 CLR 319, 335-6.
100 *Latec Invetsments Ltd v Hotel Terrigal Pty Ltd (In Liq)* [1965] HCA 17.
101 Dennis Ong, above n 97, 13; *Commissioner of Stamp Duties (Qld) v Livingston* [1965] AC 694; *Official Receiver in Bankruptcy v Schultz* (1990) 170 CLR 306.
102 *Kennon v Spry* [2008] HCA 56.
103 David Toole, above n 3.
104 *Probate and Administration Act 1898* (NSW); *Administration Act 1903* (WA); *Administration and Probate Act 1929* (ACT).

estate, all of which would constitute a breach of the legal representatives' fiduciary duties as administrators of estates.[105]

The fourth and final kind of equitable interest recognised by the courts is that of personal equities.[106] In *National Provincial Bank Ltd v Ainsworth* Lord Wilberforce observed four property characteristics that must be satisfied in order for an equitable proprietary right or interest in an asset to be found.[107] These being; it must be definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.[108] While some forms of digital assets could clearly satisfy Lord Wilberforce's characteristics, e.g. the collection and safe storage of digital documents, files, data, or media in cloud storage systems. Others would appropriately fail, and may only be recognised as personal equities such as virtual assets/items or online accounts/avatars which accumulate value through interaction with virtual communities. By their nature virtual assets often lack definability, identification by third parties, assumption by the third parties, and permanence or stability.

V EQUITABLE REMEDIES AND DIGITAL ASSETS

Although this article concedes there is limited authority to support the application of equity to digital assets as an inevitable development, it will attempt to analyse, infer and demonstrate through analogous reasoning the possible applications of equitable remedies to digital assets. This article will seek to demonstrate that equitable principles should deal with digital assets, are capable of dealing with the unique difficulties presented by digital assets, and in the absence of more appropriate or flexible remedies must deal with digital assets.

The equitable principles (often encapsulated in maxims) which underpin and permeate all facets of equity are essential to the continuing development of equity, such principles are expressed clearly and creatively in the remedies equity can provide. In the following section this article will seeks to analyse the applications of equitable remedies to digital assets, and in doing so demonstrate the potential of equity to provide a strong yet flexible framework for the protection and management of digital assets.

A Applications of Fiduciary Relationships to Digital Assets

A powerful pillar of equity is the concept of fiduciary relationships; such relationships prescribe duties and obligations upon the involved parties and generally require one of the parties to subordinate its own interests to the interests of the other party.[109] There are two criteria which must be met in order for a fiduciary relationship to found and enforceable by Australian courts, these were identified in *Hospital Products* by the NSW Court of Appeal, and endorsed by the High Court as:

> A fiduciary is someone who, either expressly or impliedly, undertakes to act in a matter in the interests of another person; and

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[105] *Bird v Bird* [2013] NSWCA 262; *Barnes v Addy* (1874) LR 9 Ch App 244.
[106] Dennis Ong, above n 97, 17-9.
[107] *National Provincial Bank Ltd v Ainsworth* [1965] AC 1175, 1226.
[108] Ibid.
[109] See especially, *Hospital Products Limited v United States Surgical Corporation* (1984) 156 CLR 41, 123; *Furs Limited v Tonkies* (1936) 54 CLR 583, 590.

> who, either expressly or impliedly, undertakes not to act in his/her own interests in the matter to which the first mentioned undertaking relates.[110]

The crux of fiduciary relationships has been identified as one of implicit dependency,[111] which is the underlying equitable principle of fiduciary relationships. That in a relationship where one party is dependent upon or places trust in the other party, and that other party assents, recognises or otherwise acknowledges the position of dependence or trust. Such a relationship attracts the protection and remedies of equity, distinct and separate from principles of common law.[112] In *Hospital Products* the High Court also identified the existing categories of fiduciary relationships,[113] critically the judgement also reinforced and solidified the notion, 'there is no reason to suppose that these categories are closed'.[114]

With the categories of fiduciaries recognised and supported by Australian precedent as open, the discussion of new categories of fiduciary relationships is essential to the healthy evolution of Australian equity. As this article has identified the legal issues posed by digital assets are broad in scope, encompassing property rights and subsequently property law, tort law, privacy law and even equity. In contemplation of this leading US legal scholar Jack M. Balkin has developed and coined the term 'Information Fiduciary'.[115] The concept of an information fiduciary according to Balkin, recognises the special relationship between technology companies and their customers/end-users.[116] Many online service providers and cloud computing companies collect, aggregate, analyse, use, sell and distribute the personal information of their customers/users.[117]

Balkin contends that this relationship possesses the characteristics of a fiduciary relationship, with the customer/user in a position of vulnerability, dependence, and trust while technology companies are in the position of power, influence and control. Through analogous reasoning Balkin compares the relationship between online service providers and their customers/users to traditionally recognised fiduciary relationships. He observes that fiduciaries often perform professional services or otherwise manage money or property on behalf of their client, principal, beneficiary, etc. a consequence of which is the fiduciaries exposure and access to personal information, which has the potential to be misused to the detriment of user interests. Such a relationship is not only characteristic of recognised categories of fiduciaries, but synonymous with the foundational principles of equity, and demands the protections and remedies it offers.

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[110] Ibid, 206; Dennis Ong, above n 97, 48.
[111] *Johnson v Buttress* (1936) 56 CLR 113, 134-5; *Breen v Williams* (1996) 186 CLR 71, 82.
[112] Dennis Ong, above n 97, 60-4.
[113] Ibid, 66-104; *Hospital Products Limited v United States Surgical Corporation* (1984) 156 CLR 41, 68, 96.
[114] *Hospital Products Limited v United States Surgical Corporation* (1984) 156 CLR 41, 68, 96; *Tate v Williamson* (1866) LR 2 Ch App 55, 61.
[115] Jack M Balkin, 'Information Fiduciaries and the First Amendment' (2016) 49 *UC Davis Law Review* 1183, 1186.
[116] Ibid.
[117] Ibid, 1186-8.

Importantly, such a position is already gaining traction in Australian courts, Pembroke J in X v Twitter recognised an equitable obligation arising where a third party comes into possession of and is put on notice of confidential information illegally obtained, that party is liable to be restrained from publishing the information.[118] While not going as far to say the obligation arose from a fiduciary obligation, the case demonstrates the realistic applications of equity to digital assets.

The creation of an Information Fiduciary category would attract traditional duties and obligations of fiduciary relationships. Of the many duties owed and defences available to fiduciary relationships there are a few of particular relevance to digital assets. Where a fiduciary has breached their duty, and the plaintiff (the person to whom the fiduciary duty has been so breached) has suffered harm as a result of the breach, then the plaintiff is entitled to recover compensation for the loss from the delinquent fiduciary.[119] Such a compensatory scheme would have wide applications for digital assets, where a digital asset is lost, shared, destroyed, or otherwise interfered with contrary to the best interests of the asset owner, that owner could seek remedy against the fiduciary breach under equity.

B Remedies of Equity

Equitable remedies are perhaps the greatest testament to the power and principles of equity; they offer plaintiffs a variety of flexible remedies pursuant to principles of conscience, fairness, equality and discretion.[120] While there are an extensive range of equitable remedies, some are broad in scope such as injunctions; others are tailored to specifically redress a particular action, an example could be tracing which has been observed as a legal process, but also retains some characteristics of a proprietary remedy.[121] Given the myriad of equitable remedies it is necessary to identify the remedies which are most relevant and applicable to address the issues posed by digital assets. This article identifies the equitable remedies of injunction, equitable estoppel, constructive trust, and account of profits as possessing relevant and viable applications to digital assets. In this section these equitable remedies will be analysed in order to determine their potential applications to digital assets.

Injunctions

In *CSR Limited v Cigna Insurance Australia Limited*, Dawson, Toohey, Gauldron, McHugh, Gummow and Kirby JJ observed:[122]

> It should be borne in mind that the term 'injunction' in the parlance of equity has no fixed definition and that it is legal usage which decides which court orders are to be identified as injunctions

As a result the use of an injunction as an equitable remedy has a broad, perhaps fluctuating scope which has also been described by Gaudron J in *ABC v Lenah Game Meats* as, 'any order by which a court commands a person to

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[118] Dennis Ong, above n 97, 17-19; *Moorgate Tobacco Co Ltd v Philip Morris Ltd (No 2)* (1984) 156 CLR 414, 438.
[119] *Nocton v Lord Ashburton* [1914] AC 932; *Maguire v Makaronis* (1997) 188 CLR 449.
[120] Anthony Mason, 'The place of Equity and Equitable Remedies in the Contemporary Common Law World' (1994) 110 *Law Quarterly Review* 238, 239.
[121] *Attorney-General (Hong Kong) v Reid* [1994] 1 AC 324.
[122] *CSR Limited v Cigna Insurance Australia Limited* (1997) 189 CLR 345, 390.

do, or refrain from doing, some particular act.'123 Naturally not all court orders are injunctions, for example, court orders authorised by legislation but not by equity would not be an injunction, but the observation of Gaudron J in *Lenah Game Meats* serves as a testament to the flexibility of equitable remedies.124

Injunctions would be useful for redressing all manner of digital asset issues, with an extreme case demonstrated in the NSWSC case of *X v Twitter Inc* [2017] NSWSC 1300, in which a world-wide injunction was ordered by the court to prevent all publication and distribution of the plaintiffs confidential information on the defendant's website.125

Injunctions would also be able to address other digital asset issues by affording plaintiffs options for the restoration of suspended/banned accounts, or restricting the collection, use, distribution and sale of metadata. Unlike other legal mechanisms this thesis has discussed, injunctions are not bound by common law rules nor does it establish guaranteed rights. As an equitable jurisdiction of the courts injunctions are a discretionary remedy, which supplements the common law only where the common law is inadequate.126

Estoppel

Another equitable remedy which may prove useful to the protection and management of digital assets, and comprise a common law and equity framework for digital assets is equitable estoppel. Estoppel is a collection of common law and equitable protections against detriment flowing from one party's change of position. Although there are three distinct forms of estoppel, these being; estoppel by conduct, promissory estoppel and proprietary estoppel, there is a consistent trend in recent decisions indicating the emergence of a single, overarching doctrine of estoppel which straddles both the common law and equity.127 However the subsets of the doctrine of estoppel remain a useful tool for analysing the applications of the doctrine, for the purposes of this thesis the most relevant of these to consider is proprietary estoppel. Which is a collective term used to describe circumstances where the operation of estoppel results in the acquisition of an interest in property, this may be in real property, chattels, chooses in action, or for the purposes of this thesis digital assets.

Constructive Trust

There are a number of unique equitable remedies developed specifically for breaches of fiduciary relationships that are worth considering in light of Balkin's 'Information Fiduciary' thesis. One such equitable remedy arising from a fiduciary relationship which would be both relevant and reasonable to apply to some forms of digital assets is the constructive trust. Which is a

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123 *Australian Broadcasting Corporation v Lenah Game Meats Pty Limited* (2001) 208 CLR 199, 231 [60].
124 Dennis Ong, above n 97, 124.
125 See especially, *X v Twitter Inc* [2017] NSWSC 1300.
126 *Chancery Amendment Act 1858* (UK); *Bristol City Council v Lovell* [1998] 1 WLR 446, 453; *Cardile v Led Builders Pty Ltd* (1999) 198 CLR 380, 396.
127 *Thompson v Palmer* (1933) 49 CLR 507, 547.

flexible and distinct equitable remedy,[128] often arising in fiduciary relationships where one party is deemed by the court to be a trustee of property, while the other party is deemed the beneficiary. Constructive trusts are particularly useful at preserving the property interests of individuals in situations where the restoration or return of the asset is impossible, impractical or undesirable.

This is demonstrable by a number of cases which utilise constructive trusts over assets or profits derived from breaches of fiduciary duties, such as *Boardman v Phipps*,[129] and *Furs Limited v Tomkies*.[130] As an alternative to equitable compensation and equitable damages constructive trusts present a flexible remedy which preserves the proprietary rights and interests of digital asset owners. Where a fiduciary breach has procured profits, the courts have held the plaintiff is entitled to either monetary compensation or to be made the beneficiary of a constructive trust of those profits.[131] An interesting application of this remedy is demonstrated by considering the previously discussed topic of information fiduciary. If the category of information fiduciary proposed by Jack Balkin were accepted and recognised by the courts,[132] circumstances where an information fiduciary breaches its duties and in doing so gains a profitable asset, would be subject to the protections and remedies of equity.[133] This would arise in many forms of digital assets, such as online service providers who collect, use, distribute and sell the metadata generated by users. This would recognise both the personal and proprietary interests of users in digital assets,[134] while establishing online service providers as constructive trustees. Alternatively constructive trusts have also been utilised where parties take part in a joint venture, under which promises or assumptions may have been made and relied upon to the detriment of an involved party.[135]

Account of Profits

Where a fiduciary has made profits from a breach of a fiduciary duty, the person to whom the fiduciary duty is owed (the plaintiff) is entitled to claim those profits from the delinquent fiduciary.[136] The courts have described such a remedy as an account of unauthorised profits, resulting in an equitable debt owed by the fiduciary to the plaintiff.[137] The equitable remedy is distinctly a personal remedy,[138] as it does not convey proprietary rights to the plaintiff, as is the case with a constructive trust. The courts have had great difficulty in articulating the exact indicia of an account of profits and a constructive trust, although it appears from the observations of Mason J in *Hospital Products* that the nature of the benefit, profit or asset obtained through a fiduciary

[128] *Muschinski v Dodds* (1985) 160 CLR 583, 614-5.
[129] *Boardman v Phipps* [1967] 2 AC 46.
[130] *Furs Limited v Tomkies* (1936) 54 CLR 583.
[131] *Giumelli v Giumelli* (1999) 196 CLR 101.
[132] Jack M Balkin, 'Information Fiduciaries and the First Amendment' (2016) 49 *UC Davis Law Review* 1183.
[133] *Attorney-General (Hong Kong) v Reid* [1994] 1 AC 324.
[134] Ibid; *Brady v Stapleton* (1952) 88 CLR 322.
[135] *Baumgartner v Baumgartner* [1987] HCA 59.
[136] Dennis Ong, above n 97, 160.
[137] *Regal (Hastings) Ltd v Gulliver* [1942] UKHL 1, [9] (Lord Russell of Killowen).
[138] *Consul Development Pty Limited v DPS Estates Pty Limited* (1975) 132 CLR 373, 395.

breach may be a determinative factor.[139] An account of profits resulting in an equitable debt would be utilised in much the same way as a constructive trust, but rather than establishing a proprietary interest the remedy would simply require the fiduciary owe a debt to the plaintiff minus their due allowance for the fiduciaries 'expenses, skills, expertise, efforts, capital and resources'.[140]

VI CONCLUSION

In conclusion, this article has sought to demonstrate the capacity of the common law and equitable principles to provide an adequate framework for the protection and management of digital assets. In doing so this article has provided a proprietary conceptualisation of digital assets pursuant to the Hohfeldian concept of property,[141] which is consistent with modern jurisprudence. Subsequently, the flow on effects of a recognised property interest in digital assets have been analysed, and pertains broadly to property law, tort law and equity. Each of these fields of law offered unique and adaptable legal mechanisms, which through analogous reasoning, could provide a degree of certainty and stability to the wild west of digital assets.[142] As a result the article presents a number of unique legal avenues which may be useful to the regulation of digital assets in the future, these avenues can be summarised as the following: the recognition of proprietary rights and interests in digital assets, property torts and a tort to privacy, and equity developing to be inclusive of digital assets.

Statutory Recognition of Proprietary Interests in Digital Assets

The observance and recognition of digital assets as property is the key to opening the avenues of tort and equity, without the critical work of Wesley Hohfeld the assertions and arguments of this article would crumble. Hohfeld reconceptualised property so as to include intangible or incorporeal assets, an absurdity under the previous Blackstonian regime of property.[143] The Hohfeldian concept of property is encapsulated as 'the relations between persons in relation to things',[144] naturally as the relationship between persons and things change over time, so too does scope of property in the eyes of the law. With this article clearly establishing the proprietary status of intangible or incorporeal assets through both principle and example, all that remains is an authoritative declaration by the judiciary or legislature to recognise digital assets as property. Whether such a declaration is made by the former or the latter is unclear and inconsequential, although as this article has demonstrated, instances of judicial innovation have been effective at spurring legislative reform.[145] As a result digital assets would be afforded the rights

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[139] *Hospital Products Limited v United States Surgical Corporation* (1984) 156 CLR 41, 110.
[140] Ibid, 570.
[141] Wesley Hohfeld, 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1913) 23 *Yale Law Journal* 16; Wesley Hohfeld, 'The Relations between Equity and Law' (1913) 11(8) *Michigan Law Review* 537, 566.
[142] Above n 5.
[143] Wesley Hohfeld, 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1913) 23 *Yale Law Journal* 16; Wesley Hohfeld, 'Fundamental Legal Conceptions as Applied to Judicial Reasoning' (1917) 26 *Yale Law Journal* 710; William Blackstone, *Commentaries on the laws of England: A Facsimile of the First Edition of 1765-1769* (University of Chicago Press, 1979) vol 2, 2.
[144] Felix Cohen, 'Dialogue on Private Property' (1954) 9 *Rutgers Law Review*, 357.
[145] Above n 77; *Mabo and Others v Queensland (No. 2)* [1992] HCA 23.

and remedies of the law, as is appropriate for an asset of such prolific value in the information age.

Tort Law and Digital Assets

As a logical flow on effect from recognising digital assets as property is the adaptation and application of the principles and precedents of traditional property torts. This article grappled with some of the challenges such a process would pose, and in doing so considered the three torts of trespass, conversion, and detinue. While the legal principles and common law underpinning some of these torts present barriers to direct transcription of these torts to digital assets, such as the possession requirement for trespass to goods. Other torts such as conversion do not possess such stringent or tangible requirements, but merely a demonstrable proprietary interest or right in the asset in order for the courts to accept a cause of action under conversion.146 Similarly the tort of detinue may arise in circumstances where the asset/property is unreasonably withheld, lost or destroyed, and would provide digital asset owners with a valuable remedial mechanism for the return of the property or alternatively damages equal to the value of the asset.147 The application of property torts to digital assets is clearest where the asset is considered economically valuable, such as, cryptocurrencies,148 metadata and certain digital goods.

This article also considered the developing tort to privacy, which is more accurately described as a tort to misuse of private information.149 While much of the common law development of a tort to privacy is contained in the jurisdiction of the United Kingdom, the development of a tort to privacy has received some recognition in the Australian judiciary.150 The High Court case of *ABC v Lenah Game Meats* considers in detail the development of a tort to privacy in Australia, including the source and constraints of the Australian jurisprudence on a tort to privacy.151 The court observed but ultimately refrained from developing the tort to privacy, citing such an action as inappropriate given the circumstances of the case.152 While respecting the decision in *ABC v Lenah Game Meats*, 153 this article critiqued the constraining case of *Victoria Park Racing v Taylor*, 154 identifying a distinction between a tort to privacy in relation to corporations and to individuals. The part concludes and endorses the development of a tort to privacy in Australia akin to the UK tort to privacy described by Tugendhat J in Videl-Hall v Google.155

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146 *Hunter BNZ Finance Pty Ltd v Mahoney* [1990] VR 41; Bernadette Richards, Melissa De Zwart, Karinne Ludlow, above n 52, 97-98.
147 Above n 77.
148 ABC News, *Millions in cryptocurrencies frozen after Quadriga found dies without giving anyone his password* (5 February 2019) ABC News Australia <https://www.abc.net.au/news/2019-02-05/millions-in-cryptocurrencies-frozen-after-canadian-founder-dies/10781832>.
149 *Videl-Hall v Google* [2014] EWHC 13 (QB).
150 *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* [2001] HCA 63, [185-190].
151 *Victoria Park Racing & Recreation Grounds Co Pty Ltd v Taylor* [1937] HCA 45.
152 *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* [2001] HCA 63, [189].
153 Ibid.
154 *Victoria Park Racing & Recreation Grounds Co Pty Ltd v Taylor* [1937] HCA 45.
155 *Videl-Hall v Google* [2014] EWHC 13 (QB).

Common Law and Equity Developing to Include Digital Assets

As a flexible and profoundly powerful legal entity equity is not bound by precedent or archaic corporeal concepts in the same ways as property law and torts. The underlying principles of equity are rooted in the conscience of the decision maker, and seek to address the inadequacies of the common law pursuant to principles of fairness, equality and discretion.[156] The cases of *Breen v Williams* and *Garcia v National Australia Bank*,[157] presented the High Court with the opportunity to develop equity through reformation or minor modifications, in both cases the majority of the High Court refrained from doing so. Together the cases have contributed to a stagnation of equity in Australian jurisprudence. The recognised categories of fiduciary relationships were also considered, with the substantial criticisms of former High Court Justice Dyson Heydon regarding modern fiduciary liability highlighting the unique problems of equity which may be detrimental to equity's applications to digital assets.[158]

Despite this equity presents a unique field of law that is capable of recognising both proprietary and equitable interests in digital assets through its flexible system of equitable priorities. Given the rate of new digital assets emerging in increasingly diverse forms, an equally flexible and agile field of law such as equity would be necessary to adequately protect and manage digital assets in the future. This article has sought to demonstrate this by analysing the applications of existing equitable remedies to digital assets, such as injunction, equitable estoppel, constructive trust, and account of profits. While these existing equitable remedies would undoubtedly prove useful to the protection and management of digital assets, it is consistent with the foundational principles of equity that existing remedies may be altered or adapted to best address a wrong, harm or loss. The creation of a new category of fiduciary relationship is also consistent with the principles and purpose of modern equity, the article considers the proposal of Jack Balkin to recognise an 'Information Fiduciary' under equity.[159] The concept of an information fiduciary recognises the fiduciary characteristics of many digital assets, where the user is placed in a position of vulnerability, dependence and trust, and the service provider is in a position of power, influence and control.

Recommendations

This article has sought to demonstrate the potential of the common law and equity to provide an adequate framework for digital assets through analysis of property law, tort law and equity. The overarching recommendation which is discernible from both the structure and argument of this article is the recognition of digital assets as personal property consistent with the Hohfeldian concept of property.

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[156] Anthony Mason, 'The place of Equity and Equitable Remedies in the Contemporary Common Law World' (1994) 110 *Law Quarterly Review* 238, 239.
[157] See, eg, *Breen v Williams* [1996] HCA 57; *Garcia v National Australia Bank Ltd* [1998] HCA 48.
[158] Dyson Heydon, 'Modern Fiduciary liability: the sick man of equity?' (2014) 20 *Trusts & Trustees* 1006.
[159] Jack M Balkin, 'Information Fiduciaries and the First Amendment' (2016) 49 *UC Davis Law Review* 1183, 1186.

Such a notion is based on the authority and analysis highlighted in preceding parts, and is essential to applying property law, tort law and equity to digital assets. Additionally each field of law has presents its own unique challenges and barriers to the application of common law precedent and principles of equity to digital assets. It is in light of those challenges this article endorses four ancillary recommendations which deserve further consideration and analysis beyond the limitations of this article. These are:

> Statutory Recognition of Proprietary Interests in Digital Assets,
>
> Equitable Interests in Digital Assets,
>
> Digital assets as intangible personal property for the purposes of tort law, and
>
> Fiduciary Categories & the Information Fiduciary Concept.

As with any law reform orientated arguments the exact or most appropriate legal avenues are unknown, with recommendations drawn from deduction, reasoning and research. This article contends that a purely statutory approach would provide an inadequate legal framework for digital assets. The article has demonstrated that common law precedent and the principles of equity are capable of providing an adequate framework, should apply to digital assets through evolutionary applications and therefore must be adapted and applied to digital assets. Doing so would ensure the best possible legal framework for the regulation, management and protection of digital assets in Australia.