Ludology as a theoretical lens for interactive works: Demonstrating the theoretical gaps in copyright analysis of interactive works

By

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Abstract

This research argues that without the appropriate category or lexicon to address interactive creations and with their assessment by analogy, interactive creations are improperly protected by copyright. They are over-under protected, their infringement decisions incoherent, inconsistent, and are protected in ways which entirely overlook their distinct and unique characteristics as an expressive medium. Drawing the boundaries of protection already proves difficult for copyright, owing to flaws and shortcomings with its principles and subject matter categorization. Which in part is why copyright struggles to protect interactive creations. However, it is contended that interactive creations present further difficulties which emerge by virtue of their interactivity. It is argued that this interactivity leads them to present significant practical and conceptual questions which copyright is ill equipped to answer. And whilst the existing academic commentary does highlight the challenges facing interactive creations, it does not do so in a way that meaningfully or specifically addresses interactive creations as a distinct medium, nor does it consider their unique qualities. To that end, this thesis argues that video game scholarship presents a helpful foundation for understanding how a more accurate ontology for interactive works might be constructed. It is contended that video game studies and ludology, can provide insights on what these neglected qualities are, as well as potential frameworks and vocabulary for more appropriately understanding and structuring these concepts. Arguing that ludology and the concepts proposed by the ludologist Frasca provide a clearer analytical lens for assessing the distinct and novel expressive capabilities of the medium. Concluding that copyright must re-evaluate its scope and purpose to better accommodate the subject matter it seeks to protect.

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Introduction

Problem Review

Copyright is an intellectual property right which subsists in creative products, or in copyright terms, vests in original works of authorship such as literary, artistic, and musical works. For example, literary copyright includes books and letters, artistic works includes sculptures and paintings, and musical works include musical scores. Copyright confers exclusive – although not absolute[1] – rights over these works and provides authors and owners of copyright works with the right to control their reproduction, communication, distribution and so forth. Facilitating the exploitation of these works and enabling rightsholders to control and 'protect' the products of their creative labour. The scope of works which copyright concerns and the nature of rights which copyright affords varies between jurisdictions, however, copyright has been increasingly and partially harmonised by a series of international legislative instruments. For instance, there are numerous international instruments which shape the contours of copyright globally such as the Rome Convention,[2] the TRIPS agreement,[3] the WIPO Treaties,[4] various EU legislative directives,[5] and in particular, there is the Berne Convention which sets out minimum standards for protection as well as providing a non-exhaustive list of the kinds of "literary and artistic works"[6] which attract protection. Accordingly, one of copyright's primary purposes is the regulation of

[1] As the rights are limited both in terms of duration, for example they might last for 70 years after the death of the author, and in terms of scope, limited by principles such as the idea expression dichotomy. See further 1.2 and 3.4.

[2] Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting 496 U.N.T.S 72.

[3] Agreement on Trade-related Aspects of Intellectual Property Rights 1869 U.N.T.S 299.

[4] WIPO Performances and Phonograms Treaty 36 I.L.M 76; WIPO Copyright Treaty 36 I.L.M 65.

[5] For example there is the Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs and the Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs. It is recognized that the extent which EU specific directives and principles will continue apply to the UK following its departure of the European Union is a subject of debate, but for the purposes of the present analysis, they will be treated as if they are relevant, especially where they have already affected UK legal jurisprudence, and where they reflect other international obligations such as Berne.

[6] Berne Convention for the Protection of Literary and Artistic Works Sept. 9, 1886, as revised at Paris July 24, 1971, and as amended Sept. 28, 1979, 102 Stat. 2853, 1161 U.N.T.S. 3.

creative works and cultural commodities and is a central socio-legal tool in the governance of creative artefacts both commercially and culturally.

Historically, there have been two dominant justifications cited for the existence of copyright, and copyright has been framed as being necessary for the objective of protecting property – often from a natural rights or Lockean perspective. Or for the dissemination of creative works – frequently in a utilitarian, incentive or economic theory perspective.[7] However, it is arguable whether copyright can be solely attributed to any of these justifications[8]. For instance, some commentators argue that justification theories have limited importance in guiding copyright's legal norms, suggesting that justification theories serve a minimal purpose beyond their use as ex post facto justifications.[9] Whilst others suggest that copyright is a product of multiple concurrent theoretical rationales.[10] Nonetheless, common to all these rationales, remains the recognition that copyright serves as a "legal vehicle for responding to and encouraging human genius, expressive creativity, and artistic and innovative endeavour[s]"[11], as well as a legal instrument which facilitates control, exploitation and dissemination of a cultural artefact regardless of whether that ultimately be for utilitarian, deontological, economic justifications and so forth.[12] Moreover, at the minimum, it is arguable that for much of contemporary copyright, there exists some underlying constitutional mandate for the promotion of public good and interest – in the form of encouragement for

[7] Justin Hughes, 'The Philosophy of Intellectual Property' (1988) 77 Georgetown Law Journal 287.
[8] Simone Schroff, 'The Purpose of Copyright—Moving beyond the Theory' (2021) 16 Journal of Intellectual Property Law & Practice 1262.
[9] Jessica Litman, *Digital Copyright* (Pbk ed, Prometheus Books 2006); Graeme Austin, 'Copyright's Modest Ontology - Theory and Pragmatism in Eldred V. Ashcroft' (2003) 16 Canadian Journal of Law and Jurisprudence 163.
[10] For instance Hughes (n 11) considers copyright as being a product of both incentive and natural rights justifications; Peter Drahos, *A Philosophy of Intellectual Property* (Dartmouth 1996) contends that for IP theories of rights have been and ought to be secondary to community concepts, duties and privileges,; Alexandra George, *Constructing Intellectual Property* (1st edn, Cambridge University Press 2012) <https://www.cambridge.org/core/product/identifier/9781139035361/type/book> accessed 1 May 2023 recognizes that although IP law often reflects ideology, the reality is that it adopts a "shifting creed"; Justine Pila, *The Subject Matter of Intellectual Property* (First edition, Oxford University Press 2017) likewise recognizes IP as reflecting both "individual as well as communitarian values".
[11] Austin (n 13).
[12] Michael Spence, 'Justifying Copyright' in Daniel McClean and Karsten Schubert (eds), *Dear images: art, copyright and culture* (Ridinghouse : ICA 2002); Schroff (n 12).

learning, promotion of arts, social and cultural progress – even if the precise nature of that public interest is nebulous or multifaceted.[13]

It is therefore imperative that copyright is capable of successfully characterizing the expressive creativity and productive endeavours that it is seeking to promote and govern. Copyright must define works in a way that provides them with meaningful and effective protection, whilst also drawing boundaries which sufficiently balance incentive and public interests. To confer sufficient protection for economic and authorial interests, without providing excessive control to the detriment of the creative commons and to public interest. Moreover, it is also crucial that copyright successfully characterizes its subject matter because by establishing the framework for cultural production, and by regulating incentive and reward, copyright becomes a "de facto instrument of culturally policy".[14] For instance, Peterson and Annand have examined how copyright carries normative and cultural consequences,[15] and as George argues, deference to IP norms carries "materially identifiable results",[16] contending that:

"institutional facts such as intellectual property laws and the objects they create become part of the social status quo…In this way, society internalizes intellectual property law and its objects of regulation, and the rules of intellectual property law become norms by which it becomes usual for society to regulate the use of ideas, information, and knowledge".[17]

[13] See for instance Jon M Garon, 'Normative Copyright: A Conceptual Framework for Copyright Philosophy' (2003) 88 Cornell Law Review 1278 commenting on US constitutional mandates for progres; Austin (n 13) commenting on the UK Commission report as a contemporary example of continued relevance of promoting social good; see also Pila, *The Subject Matter of Intellectual Property* (n 14) commenting on how even jurisdictions which historically reflected deontological models nonetheless fall within a more international consensus that reflects the: "social value of intellectual creations and the consequential desirability of encouraging them".

[14] Simon Stokes and Tarlo Lyons, 'Copyright in the Cultural Industries' [2003] European Intellectual Property Review 103; Ruth Towse, 'Copyright and Artists: A View from Cultural Economics' (2006) 20 Journal of Economic Surveys 567.

[15] Richard A Peterson and N Anand, 'The Production of Culture Perspective' (2004) 30 Annual Review of Sociology 311; Richard A Peterson, 'Six Constraints on the Production of Literary Works' (1985) 14 Poetics 45.

[16] George (n 14).

[17] ibid; Likewise, see Hughes (n 11) commenting on the importance of correctly identifying cultural objects in order to provide effective preservation of cultural works.

As such, copyright's efficacy as a tool of regulation is not only contingent on its ability to facilitate utilitarian, economic and communitarian objectives, but also in its wider role as a social and cultural instrument. Meaning that a legal framework which is blind to the cultural frameworks it impacts, and which has a limited or underdeveloped lexicon for conceptualising the cultural artefacts it attaches to, provides a poor structure for governing and regulating cultural production, even if it succeeds commercially. However, in identifying what is eligible subject matter and conceptualising what that subject matter is, copyright has frequently elected to place significant emphasis on the physical object, prioritizing protection for the cultural object as a commercial commodity, rather than as a cultural product.[18] Relying on the physical properties of the creative object to define the protected work, rather than its creative identity as it might be conceived of by its "art-regarding community".[19] Falling short in its role as an instrument of cultural and social policy.

The recourse to objects and physical traits creates several further issues. For instance, on a broad conceptual level, it undermines clarity and coherence for copyright's subject matter which are supposedly hybrid artifacts that are conferred protection for both tangible and intangible qualities. Moreover, the emphasis on physical traits has created a disproportionate system of protection since some subject matter are more readily reified by their physical properties.[20] Resulting in a framework of protection which over-privileges certain ideas and expressive characteristics, (in copyright terms 'expressions') depending on the category of the work or the nature of the expression, whilst leaving analogous ideas or expressions in other categories, or of a different nature impoverished by comparison.

There is one creative property where the physicalist approach and emphasis on objects proves especially inappropriate, and which introduces additional conceptual dissonance – interactive creations. Interactive creations broadly refers to any creative property that facilitates significant player participation, and where in copyright terms the 'work' is primarily communicated through interaction, through the experience of the 'work'. The most common example of this kind of work would be video games, and it is video

[18] See further chapter 3 at 3.2 and 3.5.
[19] Pila, *The Subject Matter of Intellectual Property* (n 14).
[20] See further chapter 1.

games which have presented the most notable complications for courts when attempting to resolve questions surrounding the nature and scope of protection conferred on highly interactive works.

As cultural artifacts that involve literary, artistic, musical or other forms of authorship and expression, video games seem like clear and straightforward candidates for protection under copyright. Similarly, as works that are significantly audio-visually driven, accommodating them under copyright appears simple. Indeed, numerous jurisdictions have acknowledged the cultural and commercial significance of video games and have recognised that they are protected by copyright.[21] However, when confronted with accommodating video games, copyright has elected not to distinguish them as their own form of cultural product. Whilst there is no international consensus son how video games ought to be treated,[22] no jurisdiction has sought to introduce a category to facilitate their protection,[23] and instead most frameworks seem to affirm that copyright's existing subject matter, existing lexicon, and existing analysis is adequate to accommodate interactive creations for the purposes of copyright, and do not introduce a distinct category or rules to specifically enable video games to be protected. And, most copyright regimes seem content to treat video games as being ontologically no different, and in some cases even as direct extensions of the existing works that it recognizes and protects, or by dissecting them and protecting components of video games such as the code as literary works, and the visuals as artistic works.[24] However, such an approach is reductive as it downplays the differences between video games and traditional categories of works, and fails to recognize that video games are separate cultural products with their own unique identity and value. Moreover, shoehorning them into existing categories does not account for the distinct expressive

[21] Andy Ramos and others, 'The Legal Status of Video Games: Comparative Analysis in National Approaches' [2013] WIPO.
[22] ibid.
[23] And likewise, video games have not been defined by any of the international legislation outlined at earlier, and are for example, absent from Berne Convention for the Protection of Literary and Artistic Works art. 2(1), Sept. 9, 1886, as revised at Paris July 24, 1971, and as amended Sept. 28, 1979, 102 Stat. 2853, 1161 U.N.T.S. 3; Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting 496 U.N.T.S 72; Agreement on Trade-related Aspects of Intellectual Property Rights 1869 U.N.T.S 299.; Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs,; Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.
[24] Ramos and others (n 25).

forms available to video game authors and creators, and overlooks the very characteristic which makes video games unique, their interaction.

Film critic Roger Ebert once controversially claimed that video games could never be high art, distinguishing them because "video games by their nature require player choices, which is the opposite of the strategy of serious film and literature, which requires authorial control".[25] Which sparked much discussion and debate on the artistic merits of video games, including commentary on how they could contribute to art by utilizing the same or similar expressive tools found in conventional mediums,[26] how they could leverage entirely new tools for similar effects,[27] and how they have their own unique artistic virtues.[28] But in one sense, Roger Ebert is not entirely wrong. Video games *are* different from film and literature, and a significant reason for that is because of player choice.

Player choice and as an extension of that – player interaction, facilitates a creative artifact which although bears resemblance to other creative works like literature – in that it can tell stories, and like film – in that it presents stories and depictions through audio and visuals, is nonetheless different because it is capable of communicating through a player's experience with a work. Moreover, that experience and communication is anchored in expressive tools that leverage choice, interaction, and the player, and therein lies the fundamental difference. Conventional mediums like

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[25] Roger Ebert, 'Why Did the Chicken Cross the Genders?' (*https://www.rogerebert.com/*) <https://www.rogerebert.com/answer-man/why-did-the-chicken-cross-the-genders> accessed 17 June 2022.

[26] Marie-Laure Ryan, 'Beyond Myth and Metaphor: The Case of Narrative in Digital Media' 1 Game Studies <http://www.gamestudies.org/0101/ryan/> accessed 18 April 2022; Brenda Laurel, *Computers as Theatre* (Second edition, Addison-Wesley 2014); Janet Murray, 'From Game-Story to Cyberdrama Janet Murray' in Noah Wardrip-Fruin, Pat Harrigan and Michael Crumpton (eds), *First person: new media as story, performance, and game* (MIT Press 2004); Janet Horowitz Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Updated edition, The MIT Press 2017).

[27] Dawn Stobbart, 'Telling Tales with Technology: Remediating Folklore and Myth through the Videogame Alan Wake' in Keri Duncan Valentine and Lucas John Jensen (eds), *Examining the Evolution of Gaming and Its Impact on Social, Cultural, and Political Perspectives* (2016); Ryan (n 30); Eoghain Meakin, Brian Vaughan and Charlie Cullen, '"Understanding" Narrative; Applying Poetics to Hellblade: Senua's Sacrifice' (2021) 21 Game Studies <http://gamestudies.org/2102/articles/meakin_vaughan_cullen> accessed 9 September 2021. See further 5.4.

[28] 'Games Studies 0101: Games Telling Stories?' (2001) 1 Game Studies <http://www.gamestudies.org/0101/juul-gts/#4> accessed 9 September 2021; Gonzalo Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (IT University of Copenhagen 2007). See further 5.5.

literature, art and film[29] communicate through expressive tools which ultimately are anchored in objects, their perception and interpretation is contingent on how they are represented in the creative artifact. And whilst there are of course aspects of video games which likewise leverage this 'represented' expressive approach, there is also expressive creativity which is rooted in interaction and which can only properly be understood and successfully be communicated through play and experience. By treating video games as mere extensions of these conventional mediums, and by applying its object-oriented framework, copyright has overlooked the very characteristics and expressive creativity which make video games unique, and fails to account for the new expressive traditions which are available to video game authors and creators that are anchored in experience and interaction rather than in objects. Moreover, it fails to acknowledge the conceptual difficulties which emerge from trying to circumscribe video games and their distinct expressiveness through objects.

Conceptualizing this interaction and experience through objects proves difficult, significantly in part because the nexus between the object(s) and the abstract work is arguably far more distant for interactive creations than it is for traditional works.[30] And although treating them as extensions of the existing categories and objects which copyright recognizes has transformed them into familiar subject matter, and facilitates their protection as a commodified and commercially controllable object, as a consequence, copyright has rendered their creative and cultural identity as secondary if not irrelevant. In shoehorning video games into existing categories, copyright fails in its role as an instrument that provides protection for cultural products that have expressive and original creativity.

In addition, it is important that works are appreciated relative to the appropriate category, because examining them from a false theoretical basis can lead to misleading conclusions. Definitional clarity and accuracy is necessary to ensure that the protection copyright confers is relevant, consistent, and appropriate. As such, for interactive creations, the commodification into objects, more so than for traditional works, is made

[29] And for the purposes of copyright so does music, see 4.4.

[30] For example, whilst a musical score is recognized as only being a convenient documented form or improperly formed example of the actual music itself, it is arguable that the objects and physical forms which are convenient for copyright to define video games in relation to are far less appropriate. For further discussion see Chapter 5.

at the cost of copyright's internal coherence. Since in order to accommodate them, copyright has had to sacrifice the coherence of its protection, to find and expand gaps in its conceptual framework to let works like video games slip through. It has had to dilute its definition of existing categories. Resulting in copyright conferring contradictory protection and emphasizing characteristics which in the context of traditional works would arguably fall outside copyright's remit.[31] Suggesting that the way copyright has reduced video games to a tangible commodity and to their representations has destabilized copyright as an effective regulatory tool and undermined the coherence of its categories.

In addition, whilst a key purpose of copyright is to facilitate commodification, it is also imperative that it governs access to the 'commons' and adopts a balanced approach to the dissemination of works. Therefore, copyright needs to draw appropriate boundaries, not just effective boundaries. To reiterate, copyright serves both a commercial as well as cultural role. Moreover, because copyright's subject matter simultaneously exists as both legal concepts as well as objects outside the law, for instance as social, economic or cultural objects, as Pila stresses, it is not only "inevitable [but] desirable that IP draw on other disciplines in understand them".[32] It is important for the law to draw upon the scholarship of its subject matter both for theoretical coherence and because its normative framework and definitions carry cultural consequences.

As such, the hypothesis of this thesis is whether Ludology – a discipline from video game scholarship which concerns the interpretation of video games – is a helpful theoretical lens for examining why copyright struggles to accommodate video games and for assessing how video games and similar interactive works ought to be characterised by copyright. Arguing that ludology provides a relevant model for describing and defining the original and expressive creativity unique to video game authors and creators,[33] provides an explanation for why video games fit poorly within

[31] For further discussion see Chapter 2

[32] Pila, *The Subject Matter of Intellectual Property* (n 14).

[33] For the purposes of this research, because the emphasis is on the cultural identity of video games, and how ludology outlines the kinds of expression available to video game creators and authors, how video games can reflect the 'personality' of their creators, and the manner in which video game authors can be creative, original (in a copyright sense), and communicate their authorial intent, related and sui generis rights will not be examined.

copyright's existing categories and taxonomy, demonstrates why copyright's lexicon and framework is limited for video game expressions, and is a helpful model for understanding the cultural identity of video games.

Objectives and Scope of the Study

This thesis investigates copyright's struggle to accommodate interactive creations and examines the reasons for why copyright has been unsuccessful. The aim is to provide an investigation of copyright's framework, models and analytical approaches that focuses on the difficulties that interactive creations present. It is proposed that although copyright's inability to circumscribe interactive creations is a product of shortcomings that are general, without subject specific analysis, the nuances and unique issues which individual subject matter present become overlooked. It is hypothesized that video game scholarship, especially ludology, can provide a helpful theoretical lens for critically assessing and understanding the limitations and shortcomings with copyright's approach. Demonstrating the lacunae in copyright's framework, providing clarity for why copyright's models and lexicon are inappropriate, showing why the solutions copyright has adopted are and will continue to be ineffectual, whilst introducing a springboard for re-evaluating copyright for both interactive creations and for the creative property, 'the works' that it protects in general. In addressing this hypothesis, the following overarching research questions will be considered:
Why does copyright struggle to draw appropriate boundaries of protection and especially with interactive works? Why are copyright's principle, concepts and subject matter flawed or limited for interactive creations? And how does ludology highlight the shortcomings of copyright's approach, and how does ludology characterize video games? Questions which correspond to the three following objectives discussed below:The first objective of this thesis is to introduce the primary issues and establish the foundation for the ensuing discussions. Providing an overview of copyright and outlining copyright's 'perennial problem' - appropriately defining its ambit both generally, and for interactive creations. The general problem will be framed against the history and development of copyright. Since the questions surrounding copyright's remit have been relevant from its inception and continue to persist through to contemporary copyright. It is also important to identify the problem within copyright more generally because the difficulties with circumscribing interactive creations stem

from fundamental issues with copyright's approach to defining boundaries. The problem will then be contextualised within copyright's attempts to assess and conceptualise interactive creations. Providing an overview of the unique challenges which face accommodating interactive creations, and which exacerbate the existing problem and struggles which copyright faces in protecting works and defining boundaries.

The second objective is to provide a general explanation for copyright's inability to effectively define the ambit of its protection. Assessing the flaws of certain key principles and concepts – such as dematerialization, authorship, the idea expression dichotomy and the work concept. As well as evaluating the limitations of various subject matter. There are several reasons for doing so. The primary reason is because the explanation for copyright's inability to protect interactive creations is cumulative. There are fundamental flaws in the principles and concepts which copyright has established for identifying and analysing its subject matter. And since the way copyright makes creative property amenable to its protection begins with the application of its principles, flaws in the principles translate to flaws in accommodating its subject matter. Moreover, copyright's subject matter is distinct, and contingent on both the categories outlined and how copyright constructs and make sense of a subject matter's unique characteristics. As such, limitations with how those categories and their characteristics are defined compound the flaws with copyright's principles. In addition, because copyright has not elected to develop an independent category for interactive creations like video games, they are left to be protected by reference to its existing subject matter categories, as such, limitations with those categories extend to interactive creations. Finally, there are limitations with how copyright addresses characteristics unique to certain subject matter – such as temporality, which can be extended to interactive creations which share those characteristics.

The third objective is to provide a more precise explanation for the challenges facing interactive creations by situating the general shortcomings in the context of interactive creations, and by analysing the unique characteristics which create issues for copyright. Relying on video game scholarship to highlight why copyright's principles and concepts, and subject matter categorization are inadequate for assessing interactive creations. It will be proposed that ludology scholarship highlights a fundamental

difference between interactive creations and the other conventional works which copyright protects, and demonstrates why they cannot be accommodated within copyright's framework – which is predominantly concerned with objects, and in ludological terms 'representations' within those objects. Importantly, the application of ludology is not an attempt to prescribe a theoretical model for copyright to directly adapt and integrate into its existing framework, nor is it an appeal for copyright to include it within its analytical traditions, but instead serves as a critique which challenges copyright to re-evaluate its approach to protecting works like video games that are interactive and experience driven. It is presented as a basis for how and why copyright may need to reconsider its approach to accommodating interactive creations, if not subject matter more broadly.

This thesis is chiefly focused on how copyright outlines, identifies and circumscribes its subject matter and 'works', but in providing specific examples, it will predominantly discuss British, American and European copyright. This is because although judicial attempts to resolve the problems introduced by interactive creations are region specific, the underlying limitations with accommodating interactive creations ultimately concern universal challenges which interactive creations present, and fundamental limitations with how certain copyright systems elect to define and circumscribe protected subject matter. As such, the analysis and discussions will be framed generally, but will draw upon examples from UK, US and European copyright. As systems which simultaneously treat their protection as generic – providing protection over works, and as specific – defined by or qualified by categories and subject matter lists. And as systems which in their approach to defining works and outlining protected subject matter, have failed to recognize the particular challenges presented by interactive creations.

Methodology, Sources and Limitations

The methodological approaches adopted by this thesis can be understood as falling into two primary categories: doctrinal legal research and interdisciplinary research. The doctrinal legal research serves to provide the foundations for the issues discussed in the thesis. Relying on legislative statutes to anchor the challenges facing the reification of works, and judicial decisions to evidence the difficulties with over-under protecting

certain ideas and expressions, and to illustrate the challenges with accommodating interactive creations. Supplementing the associated arguments with observations and analysis from relevant legal literature and commentary, which provide arguments for why certain decisions or concepts are flawed, and to highlight the shortcomings of principles and difficulties with their application. For the purposes of this thesis, the legal instruments, judicial decisions and legal scholarship will predominantly concern three jurisdictions – the UK, US and Europe. This is because the analysis is more concerned with overarching difficulties surrounding the inclusion of interactive creations into copyright systems which adopt object and category focused approaches to defining subject matter. Approaches which are adopted by these three jurisdictions, especially as signatories of Berne. And references to other jurisdictions add little to the conclusions which ultimately concern this overarching object-subject approach.

The reliance on interdisciplinary research serves two primary purposes. Firstly, in regulating creative property, copyright must define the cultural objects that it's protecting, as such, scholarship rooted in academia that principally concerns examining and analysing the respective creative properties is crucial in understanding the limitations of copyright's definitions and ontologies of subject matter. Likewise, it demonstrates why legal norms developed from assumptions which copyright makes about the subject matter it protects are flawed or inadequate. Secondly, two key contentions of the thesis is that copyright has failed to protect interactive creations by diminishing the importance or relevance of their unique characteristics and overlooks the differences between them and other creative properties. As such, it is necessary to examine both scholarship which defines and outlines the characteristics of the works which copyright traditionally protects, as well as scholarship which addresses the unique characteristics of interactive creations like video games. Where ludology, which is premised on the distinctive differences of interactive creations proves especially relevant and helpful. The reliance on interdisciplinary scholarship also serves the ancillary purposes of rationalizing judicial conclusions which are anomalous and incoherent. By demonstrating how cases which undermine the application of copyright's dichotomy, are difficult to reconcile with existing precedent, or which contradict conventional analytical traditions, are better justified and described by ludological frameworks.

The reference to ludology however is not prescriptive, nor is it proposed that copyright ought to introduce ludological analysis and traditions into its framework, directly or indirectly. Whilst an investigation into the efficacy and feasibility of integrating ludology and similar interdisciplinary analysis would be valuable, such a discussion merits significant consideration and falls beyond the scope of the present discussion. Likewise, discussions concerning the significance of changes to European legislation following *Infopaq*[34] and *Levola*[35] whilst relevant for discussing interactive creations, remain adjacent to the primary arguments made throughout, and thus will not be examined in depth. Another issue which although important, but deserves its own separate analysis is the question of authorship in the context of interactive creations and player choice. Authorship will be discussed to the extent that it is relevant as a principle for helping qualify what copyright considers works, especially under European approaches which arguably treat the work definition as synonymous with an author's own intellectual creations. However, a specific analysis of authorship and the consequences which interactive creations carry for authorship and copyright by extension will be set aside since whilst important, it remains tangential to the principle arguments of this thesis. This thesis is based on materials and reflects the law as of June 24th 2022.

Chapters Outline

It is argued that copyright has limited success in prescribing boundaries which adequately or appropriately define and circumscribe interactive creations. Chapter 1 argues that this is a general problem which copyright has with its approach to reification, and that copyright has been vague in outlining the subject of its protection, and inconsistent with how it defines what falls within its remit – as a protected expression, and what does not – as an unprotected idea. It is asserted that for certain works, providing comprehensive protection against non-literal copying without sacrificing the legitimacy of its tools and principles concerning eligibility for protection has been unsuccessful. For example, the absence of sufficient protection for film

[34] *Case C - 5/08 Infopaq International A/S v Danske Dagblades Forening* [2009] I - 06569.
[35] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV* [2018].

beyond the object and has meant that copyright must rely on other subject matter categories like literary and dramatic works to indirectly protect the film subject. Regardless of whether the tools and rhetoric developed for those categories are relevant and applicable to film. Leaving categories like film simultaneously over and underprotected, since there is both an absence of protection for film-specific techniques, and a disproportionate emphasis on literary and narrative concepts.

Chapter 2 contends that copyright's protection of interactive creations is even more lopsided and inappropriate. Arguing that the indirect protection through other subject matter, in particular the reliance on literary or visual characteristics to conceptualise the interactive work and to define protection has meant that copyright has been forced to dilute the tools and concepts associated with those literary or visual characteristics. Chapter 2 also asserts that there are explicit differences between interactive creations and traditionally protected subject matter, which introduce practical complications and make interactive creations difficult for copyright to accommodate. Specifically, their multimedia nature, their inchoate nature, and their software and functionally driven expressions. It argues that copyright's attempts to accommodate the 'interactive experience' emphasize this, as the inconsistent and incoherent caselaw demonstrate the consequences of copyright stretching literary-style protection for works that are literary adjacent, but not strictly literary in nature.

Chapter 3 examines copyright's inability to accommodate interactive creations and focuses on flaws with copyright principles which undermine the reification of creative properties. It outlines the principles and concepts that are most relevant for understanding why copyright struggles to define and circumscribe interactive creations – dematerialization, authorship, the idea-expression dichotomy, and the work. Concluding that copyright's inability to draw the boundaries of protection is primarily the product of its unhelpful work concept, especially as it functions as the culmination and intersection for all the issues identified with other copyright principles. It also argues that for interactive creations, the most significant shortcoming is copyright's category and object driven approach to defining works. Since the emphasis on objects means that characteristics disconnected from objects become difficult to accommodate within copyright. And because the reliance on categories to define the work means that protection is limited to however copyright outlines that category – and for works which

span multiple categories, limited to the kinds of analysis and tools available to those other categories. Which in turn results in tools and rhetoric being inappropriately applied to resolve distinct conceptual problems which they are not designed for.

Chapter 4 considers the limitations with how copyright has defined its categories and subject matter, focusing on the subject matter which provide relevant and applicable insights for understanding why interactive creations resist definition by copyright – literary works, artistic works, musical works and film. It argues that there are certain characteristics – such as temporality and performance in music, that are inherent to works and which prevent them from being described and protected by copyright. It contends that these characteristics are similarly relevant in understanding how interactivity and the unique expressions afforded by interactivity are incompatible with copyright. Either because they are directly relevant – like temporality, or because parallels can be drawn – for instance by extending conclusions about performance in music to performance and play for a video game. It also argues that the tendency to protect works by analogy to literary and narrative concepts irrespective of relevance demonstrates how for certain works, copyright's lexicon is both limited and lopsided. Providing a preliminary explanation for the over-under protection that faces literary-adjacent works like films and interactive creations.

To fully appreciate the limitations and gaps in copyright's lexicon, Chapter 5 examines video game academia to assess why the lexicon and framework developed by copyright is fundamentally ill equipped for analysing and describing interactive creations. It firstly considers the scholarship which focuses on video games as expressive artefacts within the narrative tradition. It examines the various unique narrative structures, and narrative tools which video games can leverage to generate meaning and expression and argues that these various structures and tools present difficulties for copyright's predominantly literary driven narrative models. Chapter 5 then applies the analysis of ludologists – theorists who focus on the meaning making potential of video games beyond the narrative tradition, and beyond meaning or expression that can be 'represented'. It considers the argument proposed by ludologists that video games are a medium that is interactive or 'simulational', and as such is afforded completely unique tools and techniques which it can leverage to generate meaning and expression, and employs it to understand how copyright's analytical traditions are limited, and why its

framework insufficient. And questions whether copyright's model which is rooted in representational semiotics is suitable for assessing interactive creations which are driven by process and experience.

Chapter 6 concludes and summarizes the arguments made throughout before touching upon the implications and the consequences for copyright depending on whether and how it changes to accommodate interactive creations.

Chapter 1 – Copyright's perennial problem: appropriately drawing the boundaries of protection

1.1 – Introduction

Copyright's inability to define and outline interactive creations is connected to an underlying and general problem which copyright has struggled with since its inception – appropriately defining its protected subject and scope to ensure effective protection. It is argued that with the introduction of protection for immaterial qualities to combat non-literal reproductions, copyright has been unable to prescribe appropriate boundaries of protection. And this is prominently demonstrated by copyright's imbalanced application of the dichotomy. It is contended that in applying the dichotomy, and in attempting to circumscribe works, copyright has sacrificed the legitimacy of its tools, and has left various works, or otherwise specific qualities or aspects of works either overprotected, or underprotected. A consequence which is especially pronounced in the UK's copyright protection for film and unconventional works. As such, to provide a foundation for assessing why copyright cannot circumscribe interactive creations, 1.2 will introduce copyright's perennial problem. In contextualizing copyright's problem, 1.2.1 will first briefly discuss the historical emergence of the problem before establishing the problem for contemporary copyright in 1.2.2. Sections 1.3 and 1.4 will then examine copyright's overprotection and underprotection of works respectively, to illustrate how copyright struggles to adequately protect works. Assessing predominantly UK copyright cases because there is a more explicit emphasis placed on subject matter categorisations, and because the UK's approach to film is particularly demonstrative of how certain kinds of subject matter can be simultaneously over-under protected and inappropriately accommodated by copyright.[36]

1.2 – Copyright's perennial problem

[36] For further discussion on why the CDPA 1988 is particularly illustrative of the shortcomings with limited categorisation, see 3.5.2, and for further discussion of the UK's approach to film, see 4.5.

Copyright is an intellectual property right which establishes and outlines the exclusive control that rightsholders and owners have over creative properties such as books, music, art and so forth. As such, a crucial question for copyright regimes is how to appropriately define its subject and scope to guarantee owners their exclusive rights and control. And by extension, how to effectively protect these creative properties from unfair exploitation. This has been a challenge starting from the protection of physical books, to the protection of text, all the way through to the contemporary position over 'works'. As 1.2.1 discusses, historically the perennial problem was more concerned adequate protection, where there were limited rights that enabled control over the printing of books, and the text within books. As such, for appropriate protection, the subject of copyright needed to be defined sufficiently broadly to guarantee effective protection and effective boundaries. And to provide adequate protection, copyright evolved and expanded its scope and rights, eventually leading to modern copyright which now protects cultural objects as hybrid properties.

However, although protecting cultural objects as hybrid properties resolved copyright's issue with effective protection in terms of scope, it introduced new issues with identification, and as 1.2.2 contends, means that copyright's problem shifts from adequate scope to adequate definition. Since, not only must contemporary copyright draw boundaries in a way which provide adequate protection against non-literal copying, it also must do so in ways which effectively and appropriately define the immaterial. Accordingly, for contemporary copyright, a primary difficulty in achieving this appropriate protection has been establishing copyright's subject and boundaries without sacrificing its legitimacy. A difficulty which originates from the invention of the printing press and its radicalization of the cultural artefact: books.

1.2.1 – Appropriate protection historically

Historically, for pre-copyright and early copyright regimes, the permitted and restricted acts associated with creative property were far more concerned with physical objects. For instance, rights and ownership over literary property concerned ownership rights

associated with the physical book itself.[37] Then with the advent of the printing press in the 15th century,[38] rights in literary property became more concerned with commercial trade activities such as the right to print and sell specific books,[39] or the right to print entire classes of books.[40] Over time, the commercial value in the literary marketplace shifted from classes of books to specific individual books, and printers sought to make competing editions by creating non-literal replicas of commercially valuable books – for instance by making minor alterations or by only partially copying a books text. Competitors also sought to commercially exploit popular books by creating other "derivative literary products" such as translations or adaptations.[41] Following this new approach to 'piracy' – non-literal copying, came a tumultuous period of political, legal and cultural debate,[42] which saw a push from printers to better secure their monopolies over their books alongside an emergent cultural movement from authors to exert greater control over their writings.[43] For both these parties, these attitudes came from the recognition that in order to effectively control their works, they needed to control the intangibles in their works, and this was reflected in both their practices and their approach to petitions for legal reform.[44]

Eventually, in 1707 the interests of authors and printers manifested in a parliamentary petition which took the novel approach of framing the regulation of books from authors perspectives, doing so by emphasizing the impact of piracy on authors. And although

[37] For example, there was the medieval right which recognized in those who had ownership of a manuscript the right to charge fees in exchange for permission to copy the manuscript. See Rose (n 1) at 9.
[38] ibid; Isabella Alexander and H Tomás Gómez-Arostegu (eds), *Research Handbook on the History of Copyright Law* (Edward Elgar Publishing 2016).
[39] Rose (n 41); Jane C Ginsburg, 'Proto-Property in Literary and Artistic Works: Sixteenth-Century Papal Printing Privileges' (Social Science Research Network 2015) SSRN Scholarly Paper ID 2650152 <https://papers.ssrn.com/abstract=2650152> accessed 19 May 2018; *Pope v Curl* (1741) 26 ER 608.
[40] Rose (n 41).
[41] Anne Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (2004) 52 New Formations 58 citing John Sutherland, *Victorian Fiction: Writers, Publishers, Readers* (2nd ed, Palgrave Macmillan 2006).
[42] Lyman Ray Patterson, *Copyright in Historical Perspective* (1. repr, Vanderbilt Univ Press 2000); Rose (n 41); Rosemary J Coombe, 'Challenging Paternity: Histories of Copyright' (1994) 6 Yale Journal of Law and the Humanities 397; Martha Woodmansee, 'The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the "Author"' (1984) 17 Eighteenth-Century Studies 425.
[43] ibid.
[44] Oren Bracha, *Owning Ideas: The Intellectual Origins of American Intellectual Property, 1790-1909* (Cambridge University Press 2016); Rose (n 41).

the 1707 petition failed,[45] the use of authorial entitlement to encourage reform persisted and the subsequent 1709 petition succeeded. Leading to what many call the first copyright legislation – The Statute of Anne. Crucially, the statute overtly recognized that authors could be "legally recognized as possible proprietors of their works"[46], and in doing so, it evidenced if not facilitated a distinct relocation of authors to the heart of literary property. With the growing appeal for authorial rights this inaugurated a new discussion centred on understanding what the precise nature of that authorial right was or should be. A discussion which would pre-empt and gradually form the foundation for identifying the immaterial literary property which authors or owners had a right in.[47]

The discourse on authorial entitlement continued to grow and was developed throughout the 18th century in what has since been called the literary property debate. A period which saw the concept of literary property expand to include the property's intangible characteristics. One early development was the conclusion reached in *Pope v Curl*,[48] a case which concerned the attempts by an author (Pope) to prevent the printing and selling of private letters. Importantly, the case recognized and distinguished between the words written and physical letter itself, noting that a party who received a letter only accrued an ownership in the material object and that it did not extend to the "composition" within. Following *Curl*[49] this was pushed further with numerous cases and essays that sought to evolve and expand the concept of literary property. For instance, in *Tonson v Collins*,[50] Blackstone noted that whilst ideas were not part of literary property, "style and sentiment"[51], as "essentials of a literary composition"[52] were. And later, in *Millar v Taylor*,[53] literary property was defined as the right to print and publish "a set of intellectual ideas or modes of thinking, communicated in a set of words and sentences and modes of expression".[54] The construction of literary property

[45] See Rose (n 2): "John Feather speculates that the 1707 bill may have failed because the advocates of censorship managed to get licensing clauses tacked on in committee".
[46] Rose (n 2) at 4.
[47] ibid; Bracha (n 48); Coombe (n 46); Woodmansee (n 46).
[48] *Pope v. Curl* (n 43).
[49] ibid.
[50] *Tonson v Collins* (1762) 1 Black W 321.
[51] ibid.
[52] ibid.
[53] *Millar v Taylor* (1769) 4 Burr 2303.
[54] ibid.

as extending beyond the text proved more effective in combating non-literal piracy. As such, with this new conception of literary property, the shift in the locus of protection which had initially relocated from the physical book to the text, subsequently moved from the text to the "sentiment" and "doctrine"[55] behind the text.[56] Because by protecting the sentiment encompassed in a text alongside the text itself, copyright was able to provide much more effective protection against partial copying, translations, adaptations and other non-literal reproductions.

With time, the copyright regime of protection grew as other creative properties besides books began to fall under its remit. Initially, "the concept of the 'writing' was stretched and supplemented to cover music and visual representations (for example engravings, sculptures and paintings) as well as written texts".[57] Which correspondingly meant that the immaterial 'sentiment and doctrine' behind these new protected creations needed to expand to address the other immaterial qualities and new artistic 'modes of expressions' residing in these cultural artefacts. With the phrase 'expression' eventually replaced sentiment and doctrine as the shorthand for a protected immaterial quality. As such, to both guarantee adequate protection against non-literal copying and to better accommodate the copyright's expanding subject matter, copyright's subject needed to become increasingly dematerialized, especially as the concept of literary property was only so malleable. Leading to copyright's modern framework which protects creative objects as a hybrid tangible-intangible property. Which on the one hand, resolved the absence of protection for creative property beyond their objects, but on the other, introduced new issues with defining the nature and scope its hybrid subject.

1.2.2 – Appropriate protection now

The key objective of contemporary copyright is to provide rights holders with the exclusive right to engage in specific acts in relation to original creative properties or 'works'. These acts include the right to copy, rent, perform, communicate, adapt and

[55] Rose (n 41); Yin Harn Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law (Part 1 and 2)' (2018) 2018 Intellectual Property Quarterly 1; *Sayre v Moore* (1785) 1 East 361.
[56] Rose (n 41); Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law (Part 1 and 2)' (n 59).
[57] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).

translate the work.[58] For instance, these rights would encompass adapting a play into a movie, or translating a book from English to French. Crucially, these restricted acts and exclusive rights thus concern not merely rights relating to physical objects per se – such as the distribution of a CD-ROM, but also include rights pertaining to the immaterial qualities which 'reside' inside the physical objects of protection. For example, the right of translation addresses not the book as a material artefact, but the sentences within. As such copyright protection extends beyond the material object and instead encompasses the 'work' as a hybrid creative property.

What precisely is a copyright work is not explicitly defined in any statutory instrument nor in any of the international treaties which have partially harmonised the law of copyright. However, the *kinds* of works capable of being protected by copyright have been broadly identified. For instance, the Berne Convention for the Protection of Literary and Artistic Works requires that signatories confer copyright on all "literary and artistic works"[59]. With "literary and artistic works" being defined in an extensive and non-exhaustive list of creations, including "every production in the literary, scientific and artistic domain…such as books…dramatic-musical works…cinematographic works…works of drawing, painting, architecture, sculpture, engraving and lithography".[60] The UK's Copyright, Designs and Patents Act 1988 identifies several categories of subject matter in which copyright is capable of subsisting, specifically – "(a) original literary, dramatic, musical and artistic works, (b) sound recordings, films or broadcasts, and (c) typographical arrangements of a published edition."[61] And similarly, the 1976 US Copyright Act affords copyright protection for all "original works of authorship"[62] alongside an open-ended list of categories including literary works, musical works, pictorial, graphic and sculptural works along with several other categories. Common to all these frameworks for copyright regulation is the requirement of originality, reliance on the concept of a

[58] Copyright, Designs and Patents Act 1988; Berne Convention for the Protection of Literary and Artistic Works art. 2.3, Sept. 9, 1886, as revised at Paris July 24, 1971, and as amended Sept. 28, 1979, 102 Stat. 2853, 1161 U.N.T.S. 3; Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified at 17 U.S.C. § 106).
[59] Berne Convention for the Protection of Literary and Artistic Works art. 2(1), Sept. 9, 1886, as revised at Paris July 24, 1971, and as amended Sept. 28, 1979, 102 Stat. 2853, 1161 U.N.T.S. 3.
[60] ibid.
[61] Copyright, Designs and Patents Act 1988.
[62] Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified at 17 U.S.C. § 102).

'work', a flexible and generic "common denominator"[63]. And an accompanying list of categories, which identifies potential works by virtue of their subject matter and their physical form.[64] Together these concepts outline copyrights tangible-intangible dual model of protection.

To reiterate, by evolving the framework of protection into a hybrid system which included both material and immaterial qualities, copyright was able to expand its scope to better address and combat non-literal copying. And this is significantly facilitated by the abstract and flexible work concept, a shorthand term which reflects and encompasses any potentially protected immaterial quality within the remit of copyright's framework of protection. Which empowers copyright to better address potential infringements when non-literal replicas are made. The generic work concept likewise allows "doctrinal rules to be framed in such a way that they [are] able to move beyond the subject-specific laws"[65]. Enabling copyright's scope of protection to encompass replicas or infringements regardless of the mediums which the subject matter a work is initially created in, potentially even extending to non-literal copying and reproductions in new and unanticipated forms.

Nevertheless, the introduction of protection over intangibles creates several new issues. For example, the very uncertainties latent in the work term which makes it useful, also creates potential difficulties in terms of providing clear definitions and ensuring the certainty of protection. Moreover, there are challenges which emerge from the inclusion of immaterial qualities into the remit of copyright's protection, ranging from challenges in identifying the boundaries of the immaterial aspects of the work, to concerns regarding overprotection and unjust monopolies stemming from poorly defined boundaries. One way in which copyright has sought to address this is by retaining the categories of protected subject matter or by identifying and listing corresponding physical objects of protection. Thus, copyright is able to provide a degree of certainty otherwise absent from the abstract work concept.[66] And helps address some of the broad difficulties in protecting the intangible qualities of a cultural

[63] Brad Sherman, 'What Is a Copyright Work?' (2011) 12 Theoretical Inquiries in Law 99.
[64] There are other common concepts and similarities however their relevance to this discussion is tangential at best.
[65] Sherman (n 67).
[66] Anne Barron, 'Copyright Law and the Claims of Art.' (2002) 4 Intellectual Property Quarterly 368, 381.

artefact. For instance, by analysing works in reference to the forms and mediums in which the physical object exists, copyright is able to retain the judicial precedents that were established when the categories of works were disparate and had distinct rules.[67] Which in turn facilitates clearer and more consistent assessments and judgements on how to draw the boundaries of protection.[68] Similarly, by identifying works within or alongside the physical objects in which the intangibles work resides,[69] copyright is able to provide objective and clear physical boundaries to help circumscribe the otherwise amorphous intangible creation within.[70] Which not only addresses uncertainties, but to some extent helps limit rightsholders from overextending the scope of their protection. However, there are also downsides and limitations for relying on physical boundaries in assessing the immaterial, and although these will be discussed more fully in chapters 3, 4, and 5 it is helpful here to highlight some key issues here.

The foremost problem with a dual approach to protected subject matter is that there is no obvious synthesis between the physical and metaphysical qualities of a creative property and no effective method to simultaneously assess both qualities. For example, crudely compounding the intangible boundaries with those of the corresponding physical object is a straightforward solution, but unfortunately overlooks creations where the intangible qualities do not perfectly or even directly coincide with the tangible.[71] Furthermore, it privileges the physical qualities of the creative property and limits the effectiveness of intangible protection as a means to combat non-literal infringement, undermining the very purpose of the dual system of protection.[72] There are also issues with relying on the forms and mediums of a physical object, as it risks applying analysis which is limited to understanding the work only by virtue of its physical characteristics. Likewise, for works which exist in multiple forms, rely on multiple mediums, or are not readily fixed in one object, it is not clear how or which corresponding formal analysis should be applied if any.[73] Yet, a system of protection

[67] Justine Pila, 'Copyright and Its Categories of Original Works' (2010) 30 Oxford Journal of Legal Studies 229.
[68] ibid; Sherman (n 67).
[69] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45) 69.
[70] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45); Barron, 'Copyright Law and the Claims of Art.' (n 70).
[71] Sherman (n 67); Pila, 'Copyright and Its Categories of Original Works' (n 71). See the discussions in 3.5, chapter 4 and chapter 5.
[72] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[73] For further discussion see 3.5.

which focused only on or prioritised the metaphysical would introduce problems with certainty and consistency. As such, under the tangible-intangible system of protection, the problem is no longer an issue with the absence of protection, but instead concerns the question of balance, definition, and accordingly, the task of how to identify the appropriate remit of protection.

In seeking to address all these aforementioned problems, as well as identify the appropriate balance and scope of protection, there is a crucial preliminary question - how can the protected immaterial subject matter in copyright be identified in the first place. Lamentably, there is no simple or obvious answer to this, and indeed copyright has employed numerous approaches when identifying the work[74], leading to inconsistencies and disparities across judgements.[75] Moreover, joint protection of tangible and intangible qualities axiomatically carries over the difficulties latent in their respective methods of protection whilst also creating new problems. For example, when assessing the intangible with the tangible, to what extent can or should copyright abstract away from the physical object to identify the metaphysical protected subject matter? And as previously noted, underlying this question is the additional concern: "how can those aspects of a symbolic/expressive artefact that are uniquely attributable to an author be reliably distinguished from those that result from…his/her general education (and so form part of the 'public domain' of ideas)?"[76] How can boundaries be developed without creating partisan protection. To respond to the uncertainties surrounding intangible protection, as well as to address the simultaneous protection of tangibles and intangibles, copyright has devised tools, concepts and some accompanying tests which help address these challenges, and introduce a degree of balance in constructing the protected subject matter. The originality requirement and the complimentary idea expression dichotomy. Together, they define and construct the remit of copyright's subject matter - potential copyright works. With the dichotomy also serving as a tool for resolving questions about identification, scope, and balance.[77]

[74] Sherman (n 67); Jani Mccutcheon, 'Shape Shifters: Searching for the Copyright Work in Kinetic Living Art' (2017) 64 Journal of the Copyright Society of the U.S.A 309; Pila, 'Copyright and Its Categories of Original Works' (n 71); Yin Harn Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' [2018] Intellectual Property Quarterly 107. See further 3.5.
[75] Sherman (n 67); Pila, 'Copyright and Its Categories of Original Works' (n 71).
[76] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[77] The efficacy of which however is debatable, as will be discussed shortly and again in 3.4.

The originality requirement in copyright refers less to the novelty of a work and is more concerned with the relationship between the author or creators and the work they produced. Alternatively put, copyright requires that the work or aspects of the work originate from or are attributable to its author. A requirement mostly born out of the authorial entitlement discourse which emerged as a result of the petitions concerning the protection for immaterial aspects of a work.[78] The precise nuance in application and definition of originality varies across jurisdictions, however expressions which do not stem from an author's unfettered choice will generally not be considered original.[79] A common example of this would be a code or algorithm which has a functional requirement or objective which thus usurps an author's "creative freedom", which in turn means the expression does not originate from the author.[80] Parallel to originality is the idea-expression dichotomy, a legal principle which establishes that copyright does not protect ideas, only the expression of ideas.

Broadly speaking, the dichotomy serves two purposes, it functions "as a principle of subsistence and a principle of infringement".[81] It sets out what copyright should not protect – broad and general ideas – so that authors cannot assert unfair monopolies through their creations. And it helps infringement assessments, by identifying when a non-literal copy has merely taken these broad and general ideas underlying the work, or when a copy has overreached and taken an authored expression. An exercise which then in turn informs questions of subsistence by identifying the protected expressions distinct from the unprotectible ideas. More specifically, the dichotomy helps extricate the protected expressions from the ideas through the abstraction test. The test establishes that the idea underlying a work can be dissected from an expression through a series of abstractions. As Learned Hand in *Nichols v. Universal Pictures Corp*[82] explains:

[78] Rose (n 41); Bracha (n 48).
[79] *C-145/10 Eva-Maria Painer v Standard Verlags GmbH* 88; *Joined Cases C - 403/08 Football Association Premier League Ltd and Others v QC Leisure and Others and C-429/08 Karen Murphy v Media Protection Services Ltd* [2011] I - 09083.
[80] *Navitaire Inc V Easyjet Airline Company and Another* [2004] EWHC 1625 (Ch); *SAS Institute v World Programming Ltd* [2013] EWHC 69 (Ch).
[81] Justine Pila, 'An Intentional View of the Copyright Work' (2008) 71 Modern Law Review 535.
[82] *Nichols v Universal Pictures Corporation et al* (1930) 45 F2d 110 (2d Cir).

"Upon any work…a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected"[83]

Thus, one can identify through these series of abstractions the point in which an immaterial quality in a work reaches an unprotectible idea, and accordingly is no longer within the remit of a copyright owners protection and can be copied without infringement. This in turn, means that where an expression is sufficiently distant from the abstracted idea, that it will be protected by copyright which then informs questions of subsistence. In doing so, the dichotomy also reflects the originality requirement, reiterating that expressions which encompass or are inextricable from the underlying idea cannot be said to originate from authors and thus are unprotectible.

As such, the dichotomy is a tool which copyright can leverage to temper the ambiguity in circumscribing the work and ostensibly provides answers to the problems identified above. It addresses the issues with monopolies and the public domain by limiting the extent of protection – non protection of ideas, whilst nonetheless securing protection against non-literal copies – the protection of expressions at a certain degree of abstraction. It provides an analysis that simultaneously addresses physical and immaterial qualities whilst also facilitating a way to move from tangible to intangible. Furthermore, through the abstraction test, it provides a tool to identify on one end of the spectrum, the physical object or lowest abstracted expression, and on the other end, the high-abstracted and immaterial idea. Creating a sliding scale of protection that accommodates the move from physical to the immaterial. And helps address the difficulties with the uncertainties and boundaries surrounding intangibles by introducing a method for identifying and then circumscribing the intangible qualities residing in the work.

However, as 1.4 and 1.5 will demonstrate, copyright's application of the dichotomy has been ineffective, and as a result copyright's boundaries and its subject remain unclear

[83] ibid.

and poorly defined. To an extent, this is because of underlying problems with the dichotomy itself.[84] For instance, the dichotomy is conditional on the definition of an 'idea', and, as Rosati notes, "it is not easy to draw a clear distinction between ideas and expressions".[85] Similarly, the abstraction test used to help clarify the distinctions itself is only approximate, and as acknowledged by the Learned Justice Hand, the boundary between an idea and expression is and will likely always be ill defined.[86] These existing difficulties in drawing bright line distinctions between ideas and expressions are then further compounded by the fact that ultimately, notwithstanding the dichotomies declaration that ideas are not protected, copyright does protect *some* ideas.

The protection and non-protection of ideas is outlined by the case *Designer Guild v Williams*[87] where following a review of copyright precedent, Lord Hoffman explains that the non-protection of ideas mostly concerns two types of ideas. Ideas which are not protected "because they have no connection with the nature of the work"[88], such as inventions or systems being described by the work.[89] And ideas which although are "of a literary, dramatic or artistic nature, they are not original, or [are] so commonplace as not to form a substantial part of the work."[90] As such, it is not so much that ideas are unprotectable, but that copyright excludes ideas of a certain nature from protection. The consequence of this then is that the already inexact task of extricating expressions from ideas becomes even more difficult. With expressions and ideas being conflated, copyright analysis now also involves dissecting both expressions and ideas from certain unprotectable ideas.

Alongside this is a further obstacle that hinders the successful application of the dichotomy – that copyright's definitions of a given idea or expression, and the rhetoric used in the abstraction tests to distinguish the unprotectible idea from the expression may not always be universal. Accordingly, if precedents are directly transposed from one subject matter to another, then there could be incoherent conclusions reached,

[84] As will be discussed further in 3.4.
[85] Eleonora Rosati, 'Illusions Perdues. The Idea/Expression Dichotomy at Crossroads' (2010).
[86] *Nichols v. Universal Pictures Corporation et al.* (n 86).
[87] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (2000) 1 WLR 2416.
[88] ibid.
[89] ibid.
[90] ibid.

especially if the comparison is imperfect. For example, rhetoric used to distinguish an idea from expression established for one subject matter could be applied to another subject matter even if the inappropriate.[91] Worse still, it could mean that in order to achieve effective protection in one medium, the definitions of ideas or expressions from other mediums may need to be stretched or become stretched indirectly to compensate for the limitations placed by existing precedents.[92] Leading to overprotection elsewhere, or otherwise, protection of the wrong qualities. Whilst at the same time, leaving certain other qualities or expressions in works with thin protection or without protection at all. These are not mere hypotheticals, and as the following two sections will demonstrate, as copyright case law has developed, numerous discrepancies have emerged, sometimes within the same type of subject matter, and at other times with disparities between two different mediums. Resulting in a system rife with internal inconsistency, plagued with what appears to be ad-hoc decision making, theoretical incoherence, and asymmetrical protection across copyright's various subject matter. Demonstrating how copyright still struggles to adequately define its subject and appropriately characterize its boundaries.

1.3 – Overprotection

The most conspicuous consequence of conflating protection for expressions with the protection of ideas is the risk that copyright ends up protecting immaterial qualities the dichotomy sought to exclude from protection in the first place – high abstracted ideas, which if protected would prejudice the 'public domain of ideas'. At best, the protection of certain ideas raises questions about the theoretical validity of the dichotomy and at worst clouds the application of the dichotomy to the extent that it no longer serves any purpose.[93] Unfortunately, copyright's application of the dichotomy has not been successful, and this can be observed across several cases, including several notable judgements which either seemingly protect ideas which are 'highly abstract ideas', or in

[91] For further discussion see 1.4 and 2.4.
[92] For further discussion see 2.5.
[93] Patrick Masiyakurima, 'The Futility of the Idea/Expression Dichotomy in UK Copyright Law' (2007) 38 The International Review of Intellectual Property and Competition Law 548; Rosati, 'Illusions Perdues. The Idea/Expression Dichotomy at Crossroads' (n 89); Edward Samuels, 'The Idea-Expression Dichotomy in Copyright Law' (1989) 56 Tenn. L. Rev. 321; Richard Jones, 'The Myth of the Idea/Expression Dichotomy in Copyright Law' (1990) 10 Pace L. Rev. 551.

the least, contradict directly with the judicial precedent of other similar cases. This section will examine some of these cases, discussing how and why their protection of ideas is either contradictory, or why the protection of ideas is potentially at too high a level and thus irreconcilable with the dichotomy's non-protection of ideas.

The best starting point for the discussion on the overprotection of ideas is the aforementioned case *Designer Guild v Williams*,[94] which sets out the criteria for ideas which are not capable of being protected – those which are unconnected with the work, and those which are either commonplace, or unoriginal, whilst also demonstrating how abstract ideas can nonetheless be protected. The case concerned the question of infringement in a fabric design, where common to both designs was the use of vertical stripes with flowers interspersed across them. In dissecting ideas from expression, it was recognized that ideas are protected at least to some extent since the protection of an expression invariably involves the simultaneous protection of an idea as well. This was qualified by observing that certain ideas are not capable of being protected, such as inventions, or ideas which were too broad. For instance, it was explained that "the mere notion of combining stripes and flowers"[95] alone is at too high a level of abstraction to attract protection. And it was recognized that "There was nothing original about vertical stripes."[96] However, the case nonetheless found infringement affirming the trial courts finding of similarities, and in doing so stressed the combination of ideas. Which included: the vertical stripes and scattered flowers and leaves, the use of a neo-impressionist style and accompanying brushstroke technique, the rough edges of the stripes, the comma like petals and use of 'dryish brush strokes' to paint them, the use of the 'resist effect', the use of a 'strong blob' as the flower heads, and the leaves being two distinct shades of green with similar brush strokes.[97] Ideas which would appear at face value are or at least are close to the highly abstracted ideas which are beyond copyright's remit of protection. As such, it seems reasonable to conclude whilst ideas cannot be protected individually or in a vacuum, several ideas in toto can be, even if they are ideas which ordinarily are not detailed enough to be considered expressions, or are commonly treated as highly abstracted ideas.

[94] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[95] ibid.
[96] ibid.
[97] ibid.

There are numerous implications of this, not least the indirect protection of highly abstracted ideas which the dichotomy purportedly precludes from copyright. Furthermore, the question is begged – at what point does a set of unprotected ideas become capable of attracting copyright protection. And there does not seem to be a straightforward answer, nor does there seem to be any explicit policy reasons to help guide such a question. Is it then just a matter of impression for courts? If so, an obvious concern is the ramifications for the dichotomy as an already imprecise tool, and the potential for contradictory judgements or uncertainty. This collective protection of ideas as an expression can be identified in several other cases, for example, there is the controversial case of *Temple Island Collections v. New English Teas Ltd*[98].

The issue at hand concerned a photograph, and whether replicating a red double-decker bus, in a monochrome background, set in Westminster Bridge, could constitute infringement. The court recognized that the idea of combining iconic images was common, and that similarly, the technique of highlighting iconic objects through colour contrast was not unique or original. Nonetheless, the court found infringement stressing that it is not important "that the artist may have used commonplace techniques to produce his work".[99] Explaining that what mattered was "that he or she has used them under the guidance of their own aesthetic sense to create the visual effect in question."[100] A conclusion which mirrors the *Designer Guild*[101] rhetoric which stressed an author's 'choice' as a crucial factor. This is emphasized in the judgement where it is explained that the photograph is not merely a photograph, in the sense that it is only an image resulting from a mere click, but one which was a product of deliberate choices and deliberate manipulations by the author.

However, these choices included: "choosing where to stand and when to click."[102] Which represents a minor albeit important departure from the rhetoric in Designer Guild. Since depending on where you abstract the idea to, protecting where to stand or when to click does not just extend protection for technique, but confers protection on

[98] *Temple Island Collections v New English Teas* (2012) 1 EWPCC.
[99] ibid.
[100] ibid.
[101] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[102] *Temple Island Collections v New English Teas* (n 102).

technique which is seemingly closer to function. To elaborate, if you assume that the idea is simply – a red bus against a monochrome backdrop with Westminster, then it could be argued that at least some of the choices are inevitable owing to the idea. Or at minimum, that the choice of where to stand to be able to take the photo of both Westminster and a bus is on *some* level functionally dictated. Moreover, unlike Designer Guild where the artistic choice for instance to paint flowers is more readily identifiable as being attributable to an author, because of the camera the choices here are more technical in nature.

There are three implications of this, firstly, it suggests that copyright not only protects techniques, but it can protect techniques that are at least somewhat connected to function. Secondly, it suggests that the rule on functionally dictated expressions is perhaps poorly designed[103] if its largely contingent on how and where ideas are abstracted to in the first place, a task which itself is imprecise and inconsistent.[104] Finally, it seems to suggest that choices technical or mechanical in nature do not automatically displace authors or make the choice functional; a conclusion which sits poorly with much of the video game caselaw discussed in the following chapter.

Turning to a different example of copyright's collective protection of ideas, there are the two seemingly contradictory cases of *Ravenscroft v Herbert*,[105] and *Baigent v. Random House*.[106] In the former, *Ravenscroft*, the court effectively found infringement over the copying of facts and historical events, noting that:

"he has adopted wholesale the identical incidents of documented and occult history which the plaintiff used in support of his theory of the ancestry and attributes of the spear, of Hitler's obsession with it and also General Patton's."[107]

[103] A point which will be revisited and in more depth in 2.3.4.3.
[104] CF Temple Island Collections v New English Teas (n 74) with Hanfstaengel v Baines [1895] AC 31 and Bauman v Fussell [1978] RPC 485.
[105] *Ravenscroft v Herbert* [1980] RPC 193.
[106] *Baigent v Random House Group Ltd* [2008] EMLR 7.
[107] *Ravenscroft v Herbert* (n 109).

Whereas in contrast, in *Baigent* the court concluded that the copied ideas were merely "information, facts, ideas, theories, arguments, themes and so on"[108], rather than "the form or manner in which ideas were expressed"[109], and thus not subject to copyright protection. Commenting on *Ravenscroft* the trial judge noted that whilst facts and ideas cannot be protected, the way they are put together, their "architecture"[110] can be. And the Court of Appeal affirmed this explaining that there were no "detailed similarities of language or 'architectural' similarities in the detailed treatment or development of the collection or arrangement of incidents, situations, characters and narrative"[111] and as such no infringement. It seems then that although both cases concerned facts or 'ideas', the crucial distinction for the purposes of infringement is the copying of architecture or form or manner which expressed the ideas.

However, what precisely is meant by architecture or form and manner is not particularly obvious. The court explained in *Baigent* for instance that there was alongside deliberate copying of language, the "copying of the same historical characters, historical incidents and interpretation of the significance of historical events."[112] Furthermore, citing another case concerning a historical work, *Harman Pictures NV v. Osborne*[113] the court explained again that unlike in Baigent, there was "the marked similarity of the choice of incidents ... and by the juxtaposition of ideas"[114] which informed the infringement finding. These clarifications are largely unhelpful. At what point does copying historical characters or incidents amount to infringement, and to what extent does the juxtaposition or presentation of those ideas together lend to the infringement analysis? Moreover, in *Baigent* it was held that even if assuming there were 15 elements which appeared in "natural chronological order"[115] that in the context of the case it would not be significant, as "what other order could there be?".[116] Surely the benchmark for sufficiently authorial architecture or form is not so simple as to be 'non-chronological'. Arguably the most obvious difference between the cases is the 50

[108] *Baigent v Random House Group Ltd* (n 110).
[109] ibid.
[110] ibid.
[111] ibid.
[112] ibid.
[113] *Harman Pictures NV v Osborne* (1967) 2 All ER 324.
[114] *Baigent v Random House Group Ltd* (n 110).
[115] ibid.
[116] ibid.

instances of wholesale language copying that took place in Ravenscroft, a fact which again was raised in Baigent. As such it is not obvious then when or why facts, history or historical characters as ideas may attract protection beyond perhaps the substance and quantity taken, or if the architecture or form – as vague as the criteria for that may be – is copied alongside it. Nonetheless, it is clear that they are capable of protection.

Turning now to one final case which represents the broad protection occasionally available to certain ideas or expressive ideas – *DC Comics v. Towle*.[117] The case concerned a dispute between DC Comics, the publisher and copyright holder of the Batman comic book series, and the defendant Towle who was selling physical replicas of Batman's signature car – the Batmobile. The court found in favour of DC Comics concluding that the Batmobile's had "especially distinctive"[118] and "unique expressions"[119] which were protectable expressions. Interestingly, despite the fact that the Batmobile has been presented in numerous different forms and has changed appearance over several years, the court was willing to identify several common features. In particular, these included "bat-like features"[120], "futuristic technology"[121] and "crime fighting weaponry"[122]. Once again these are in the least, features which in isolation, and in the context of the dichotomy, lean towards the 'abstract' and 'idea' end of the spectrum. Moreover, even if taken in totality, the combination of these features likely still approach the abstract idea end of the dichotomy. Assuming for instance, that the 'bat-like features' were not included, then surely protection could not be granted to a car which merely had futuristic technology and crime fighting weaponry, as this could easily broadly encompass numerous already existing fictional vehicles such as the Phooeymobile,[123] the Gadgetmobile,[124] and depending on how you define 'crime fighting', perhaps even any number of the cars from the Transformers franchise.

[117] *DC Comics v Towle* (2015) 802 F3d 1012 (9th Cir).
[118] ibid.
[119] ibid.
[120] ibid.
[121] ibid.
[122] ibid.
[123] 'The Phooeymobile' (*Star cars Wiki*) <https://starcars.fandom.com/wiki/The_Phooeymobile> accessed 16 August 2021.
[124] 'Gadgetmobile' (*Inspector Gadget Wiki*) <https://inspectorgadget.fandom.com/wiki/Gadgetmobile> accessed 16 August 2021.

As such, is it the "bat-like features" itself which forms the distinguishing factor, or is it like many of the aforementioned cases – the combination of these ideas? The former seems unlikely as bat-like features almost invariably falls within or close to the qualities which *Nichols v. Universal Pictures Corp*[125] was unwilling to protect. As noted in *Nichols*, "the less developed the characters, the less they can be copy-righted" [126], and in doing so rejected extending protection to stock character concepts such as 'the lovers' or 'fathers', nor to a feuding 'Irish family' and 'Jewish family'.[127] To propose that bat like features, or indeed even the combination of all those features are manifestly more developed than a feuding Irish and Jewish family seems fairly generous. Therefore it is again unclear as to why these features which both in isolation and together are considered protected expressions of ideas rather than mere unprotectable ideas themselves.

Despite copyright's purported exclusion of ideas, it nonetheless appears that facts, characteristics, techniques or even functional techniques are capable of attracting protection. Admittedly, many of these immaterial qualities are being indirectly protected as either expressive ideas or by being treated as a collection or combination of ideas in an expressive manner. Regardless, the implications of this are manifold and as demonstrated this had led to not merely an erosion of the dichotomy in principle, but also has resulted in incompatible or seemingly contradictory judicial decisions. Moreover, some of these ideas are not merely overprotected by reference to cases with similar facts where protection was denied, but also in comparison to the protection afforded to both expressions and expressive ideas in other mediums. An issue which will be elaborated on in the following section, as well as later in chapter 2.

1.4 – Underprotection

Copyright's application of the dichotomy has similarly rendered certain expressions unprotected and some genres of works with thinner protection than in other categories of subject matter. Paradoxically, this is partly owing to the stronger protection that

[125] *Nichols v. Universal Pictures Corporation et al.* (n 86).
[126] ibid.
[127] ibid.

copyright has provided some ideas or expressive ideas such as those above, which has left analogous ideas or expressions underprotected by comparison. Furthermore, the manner in which copyright has applied the dichotomy and sought to distinguish between protected expressions versus unprotected expressions, and between potentially protectable ideas and unprotectable ideas has similarly led to an asymmetrical system of protection. Notably, these underprotected works are those where copyright's existing models of reification are either inappropriate or at best only partially applicable.

One of the mediums where the disparity in protection is particularly pronounced is film, owing mostly to how the law treats and conceptualizes film as a cultural artefact. Specifically, the manner in which copyright draws the physical and immaterial boundaries around a film, and the manner in which it abstracts intangible qualities and expressions from the physical object has resulted in "law's protection for films [being] both overinclusive and under-inclusive at the same time".[128] The case that bests demonstrates this duality is *Norowzian v Arks Ltd*.[129] The dispute was centred around a television advertisement which the claimant argued had infringed their short film. The short film depicts a man performing a dance to a musical soundtrack. In particular, the dance was made to look particularly "surreal"[130] through the use of jump cutting editing to enable successive movements which could not be performed in real life. The television advertisement likewise portrayed a man who after being served a pint of Guinness, waits for the froth to settle and whilst doing so "carries out a series of dancing movements"[131]. Like the short film, the advertisement is set to a musical background and there is no dialogue. Moreover, the advertisement also relied on jump cutting to create a "series of jerky movements that could not be achieved by a dancer in reality."[132] The court eventually found that there was no infringement, and in doing so it drew two important conclusions which not only shapes the manner in which film subsistence in British copyright is to be understood, but also reveals some fundamental challenges with how copyright identifies a work and subsistence broadly.

[128] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[129] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No 2)* [2000] ECDR 205.
[130] ibid.
[131] ibid.
[132] ibid.

Firstly, the court reaffirmed the long-standing UK precedent which existed from film's inception into copyright's privileged list of protected objects – that "infringement of film copyright requires a copying of the actual film, that is to say the recording constituted by the film, and does not include copying of the subject matter of the film"[133]. In other words, that like the statute implies, 'film' means a recording on any medium from which a moving image may by any means be produced. And because there was no replication of an image or the series of images, there was no infringement in the film. As such, as Barron criticizes, films qua films are in copyright treated predominantly if not exclusively as their physical objects of commodification, rather than expressive cultural artefacts, and prior to Norowzian their subsistence resided only in the series of images rather than the substance of recording.[134] However, *Norowzian* equally extended the remit of protection for films generally, by recognizing that a film could broadly find protection as a dramatic work finding that "dramatic work in the 1988 Act must comprehend not only drama in any traditional or normal sense but also cinematography".[135] This development is significant, since by viewing the film as a dramatic work, the law moved towards a framework that better encompassed the immaterial expressions in a film as part of copyright.

Nonetheless, the protection of film qua dramatic work is an imperfect if not crude solution. On the one hand, the recognition that films are works which involve expressions beyond "the images fixed on a screen or strip of celluloid"[136] is a necessary and crucial expansion of copyright subsistence for films, as a matter of both theoretical coherence and to ensure adequate protection against non-literal copies. Yet, the expansion of film protection through dramatic works is somewhat contrived, as certain expressions unique to film either must be pigeonholed to fit the rhetoric for expressions in a dramatic work, or otherwise be left unprotected altogether. In *Norowzian*, this was the latter. Where the court in its finding of non-infringement noted that although "there is a striking similarity between the filming and editing styles and techniques used by the respective directors of the two films…no copyright subsists in mere style or technique."[137] This conclusion is troubling for numerous reasons, although perhaps the

[133] *Norowzian v Arks Ltd (No 2)* [1999] FSR 79.
[134] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[135] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[136] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[137] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

most obvious is the absence of protection for style and techniques in films despite technique and style accruing protection in the case of paintings and photographs as demonstrated in *Designer Guild*[138] and *New English Teas*[139]. Underlying this contradiction is a further concern, which lies in the manner in which the subject matter was constructed. Setting aside the techniques, the court further explained that the subject matter of the two films were fundamentally very different, and as such there could not be infringement. One crucial distinction made was the difference in the respective themes of the films, "hesitation"[140] and "impatience/anticipation"[141]. Concluding that essentially, despite the similarities, their narratives were fundamentally different and thus there was no infringement.

This fixation on the themes reveals a primacy of narrative underlying copyright, and in this instance a primacy of narrative understood from the perspective of dramatic works. It is worth stressing that "film narration depends on the use of specific devices to control the range of story information made available to the viewer, and from what point of view",[142] as such the exclusion of techniques or style as mere ideas overlooks the specific tools unique to film narration. Moreover, the construction of expressions and the immaterial value in a film from a narrative perspective is one that privileges both specific types of techniques and styles – those which serve or are being used for narrative purposes – and narratively driven films. To some extent, this preference for narrative is attributable to the protection of film's subject matter as dramatic form, as it imports the importance of narratives and the accompanying rhetoric traditionally applied in dramatic works over to copyright analysis of film. However, this prejudice towards the narrative is one that arguably exists in copyright more broadly and will be discussed further in the thesis. At present though, it suffices to say that at least in relation to films, there is an underlying tendency to underprotect works, which often is attributable to the manner in which copyright draws boundaries around the tangible object, the intangible qualities within that object, and the work as a whole.

[138] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[139] *Temple Island Collections v New English Teas* (n 102).
[140] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[141] ibid.
[142] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).

A case which similarly demonstrates the difficulties in appropriately protecting films is *Lucasfilm vs Ainsworth*,[143] where because of the thin protection available to films qua films, and the necessity to protect them by reference to another subject matter, the protection of certain filmic expressions has been inadequate. The question of infringement was whether the defendant who was commissioned to create a helmet for a film – the stormtrooper helmet in Star Wars – was infringing a copyright in the subsequent film by later selling and producing replicas of the helmet. The primary issue at hand, was whether the "military-style helmet"[144] was a sculpture for the purposes of copyright. The reason for the courts treatment of the helmet as a sculpture was similar to *Norowzian*, a product of the thin protection afforded to films, and accordingly the need to assess various aspects of their subject matter by reference to other categories of copyright. Ultimately, the court concluded that there was no infringement on the basis that the helmet was utilitarian. They explained that **"**it was the Star Wars film that was the work of art that Mr Lucas and his companies created. The helmet was utilitarian in the sense that it was an element in the process of production of the film."[145] The treatment of the helmet as utilitarian is troublesome for various reasons. Foremost amongst these is the classification itself. Conceptually it seems strange to call a military helmet utilitarian when it does not serve the utilitarian function ordinarily or plainly associated with a military helmet. The second and in ways more problematic issue is the conclusion that it is utilitarian because it was an element in the process of film production. This implies that the production process is tangential to the creative work that is the film, and that elements created as part of that process are not original expressions because they serve a functional purpose. And applying the definition of functional ideas from *Designer Guild*[146], this would seem to suggest that these aspects of the production process have no connection with the work at large – the film.

To dissect and ignore production elements such as stage and costume from a film reiterates the aforementioned and similar problem from Norowzian: that copyright's conception of a film is reductivist in that it only protects films qua films if the *physical* film, the celluloid is copied, and that by protecting it through other subject matter you

[143] *Lucasfilm Ltd and others v Ainsworth and another* [2012] 1 AC 208.
[144] ibid.
[145] ibid.
[146] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).

overlook expressions specific and unique to film as a medium. It is not unusual to assert the importance of stage and costume as crucial aspects of the filmic work in film studies,[147] yet in copyright it seems that they cannot attract protection as elements of a film. This conclusion is perhaps even more absurd when one considers that these production elements function in a similar way to sound. Like sound, they can be isolated from the film's final physical product whilst simultaneously lending and adopting greater meaning when considered alongside the film. However, the law only seems to recognize sound as part of the film.[148] To dissect and treat the helmet as a sculpture, and to then treat the helmet as functional significantly discounts the myriad expressions used in a film and their value. Consider for instance the script written for a film. It could be dissected from the film and treated as a literary work, however unlike the helmet, there is little doubt that it could be protected, and indeed has been.[149] Why is it that the script is not considered a functional element in the process of creating and producing the film? It could be argued that there is a difference in scope in terms the pervasiveness of the script versus a piece of production design, and yet that does not fully align with the overarching reasoning and discussion on whether the helmet could have a simultaneous utilitarian and artistic purpose.[150] It is suggested that the more likely explanation is that much like editing and similar tools unique to film, that copyright's willingness or even ability to protect them as expressions or expressive ideas is absent. At least in comparison to a script which is much more amenable to traditional narratively driven expressions which copyright has recognized and protected for centuries. Again, a broader discussion on this prejudice will be explored fully in Chapter 3, however it is useful to recognize and note the incidents of it.

Before moving on there is one final case worth briefly examining – *Creation Records Ltd and Another v News Group Newspapers Ltd*.[151] Admittedly this is a case which chiefly struggled with subsistence owing to issues of fixation and the list based system,

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[147] Every Frame a Painting, *In Praise of Chairs* <https://www.youtube.com/watch?v=FfGKNJ4mldE> accessed 16 August 2021; Tamao Nakahara, 'PRODUCTION PLAY: Sets, Props, and Costumes in Cult Films' in Jamie Sexton and Ernest Mathijs (eds), *The Routledge companion to cult cinema* (Routledge, Taylor & Francis Group 2020); Sarah Street, *Costume and Cinema: Dress Codes in Popular Film* (1. publ, Wallflower Press 2001).

[148] section 5(b)(2) Copyright, Designs and Patents Act 1988.

[149] *Benay v Warner Bros Entertainment Inc* (2010) 607 F 3d 620 (9th Cir); *The Sheldon Abend Revocable Trust, v Steven Spielberg et al* (2010) 748 F Supp 2d 200.

[150] *Lucasfilm Ltd and others v Ainsworth and another* (n 147).

[151] *Creation Records Limited and Others v News Group Newspapers Limited* [1997] EMLR 444.

and is a case which following *Infopaq*[152] could arguably be decided differently.[153] Nonetheless, this a useful case in demonstrating that the above problems are not unique to film, and demonstrates that in general copyright has a problem with the reification of creations which do not immediately fit its framework, and especially do not fit within the physical objects of protection ordinarily listed. The facts of *Creation Records*[154] involve an unauthorised photo taken of an arrangement of objects intended to be an album cover. In assessing whether it could be protected the court held that as a static scene with neither movement nor story it was not a dramatic work. Without carving or modelling it was not a sculpture. As merely an assembly of objects it was not a work of artistic craftsmanship. And it was a not a collage since it was ephemeral. As such, there was little to no basis on which copyright subsistence could be identified. As already noted, much of this turns on the lack of fixation and British Copyright's historic reliance on a list-based approach to copyright. Nonetheless it crucially demonstrates that copyright has at least historically approached protection through the object first, followed by subject matter. This is perhaps unsurprising considering the wider history of copyright and evolution of its framework. However, that copyright continues to examine works by reference to their physical substrates still is perhaps concerning, as there are direct and indirect implications of relying on perceived objects to identify an immaterial work. As noted, the extension of protection over intangibles was in part introduced precisely to address this. What happens when a work has significant immaterial qualities, or if it has little to not physical object in which the work manifests? It seems in the case of *Creation Records*[155] the work falls to be unprotected. Alternatively, what if a works immaterial qualities are significantly distant from the physical objects, again, following *Creation Records* or even *Norowzian*[156] it seems that protection will either be non-existent, thin or at best defined by reference to a medium in which copyright has already or previously defined the object or similar physical manifestations.

[152] *Case C - 5/08 Infopaq International A/S v. Danske Dagblades Forening* (n 38).
[153] Eleonora Rosati, 'Closed Subject-Matter Systems Are No Longer Compatible with EU Copyright' [2014] GRUR Int. <https://ssrn.com/abstract=2468104>.
[154] *Creation Records Limited and Others v News Group Newspapers Limited* (n 155).
[155] ibid.
[156] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

To reiterate, whilst all these underprotection cases involve UK legislation, and to some extent are affected by the list-based approach to subject matter which prior to Infopaq[157] held and arguably still holds greater influence in UK law than the non-exhaustive lists elsewhere, much of the rhetoric and bias in analysis nonetheless can be identified in other jurisdictions. The difference mostly being that the bias is frequently less overtly a result of shoehorning a work and the subsistence and infringement analysis within a particular category. As Chapter 2 in particular will demonstrate, many of these issues have similarly plagued the legal discourse on interactive works in the US.

1.5 – Conclusion

The application of copyright's dichotomy has made the protection of works contradictory, uncertain and imbalanced. Notwithstanding the dichotomy, copyright has conferred protection on certain ideas, regardless of their proximity to highly abstracted ideas, and despite being common or unoriginal. Conversely, copyright has overlooked and discounted ideas which serve similar purposes to, or at least are in nature similar to ideas which copyright has extended protection for. Copyright has also wrongly imported or borrowed rhetoric from adjacent subject matter – for instance relying on dramatic or artistic assumptions in film. Leading to some expressions being afforded fewer avenues of protection, since the application of the idea-expression dichotomy and the abstraction tests wrongly examines expressions against ideas which are inappropriate or irrelevant for that given assessment or subject matter. As a result, copyright's framework is unable to provide coherent answers to the two fundamental questions it sought to address in the first place, adequate and appropriate protection. In particular, certain categories of works such as film are left with paradoxical protection, where some qualities are overprotected, and others underprotected. This dualism is particularly pronounced in the protection of interactive works, and the following chapter will demonstrate that many of these aforementioned problems are exacerbated for interactive creations, most notably demonstrated by video game caselaw.

[157] *Case C - 5/08 Infopaq International A/S v. Danske Dagblades Forening* (n 38).

Chapter 2 – An old problem in a brand-new medium: over-under protection and interactive works

2.1 – Introduction

This chapter discusses why interactive creations challenge copyright's framework of protection and demonstrates how the aforementioned problems with adequate and appropriate protection are exacerbated by their defining quality – interactivity. Section 2.2 will first define interactivity and interactive creations for the purposes of this thesis. Distinguishing 'traditional interactivity' as understood by copyright from 'contemporary interactivity' which creates new problems for copyright, before introducing the kinds of works that contemporary interactivity will encompass. Section 2.3 will then discuss why this interactivity poses unique problems for the current copyright model and explains why the nature of these interactive works makes them less amenable to copyright than the types of works discussed thus far. Specifically, it will touch on the similarities with existing underprotected works – notably their multimedia nature and the corresponding difficulty in accommodating them as a distinct and composite medium under copyright. As well as the primary unique differences, such as the total absence of a formal definition in copyright, their interactive nature and its consequences, and the vehicle for interactivity – software. Having introduced the qualities which make interactive works less amenable to copyright, sections 2.4 and 2.5 will examine existing caselaw on interactive creations, demonstrating how the absence of suitable protection for interactivity, leads to even more absurd results and even greater overprotection than in non-interactive works.

2.2 – A definition of interactivity and interactive works for the purposes of copyright's perennial problem

Interactivity in of itself is neither a new phenomenon, nor is it necessarily a challenging characteristic for copyright to address. Boardgames and choose-your-own adventure novels are long standing examples of works which whilst interactive, have not posed significant problems for copyright's assessment of protection or infringement. For

instance, the court in *Galaxy Electronics v Sega Enterprises*[158] concluded that player participation did not defeat copyright eligibility, nor did it prevent video games from being considered audiovisual works.[159] Similarly, this was the position taken by Justice Scalia in *Brown V EMA,*[160] where he rejected the claim that "video games present special problems because they are 'interactive'"[161], arguing that the feature of interactivity is "nothing new"[162] giving choose-your-own adventure stories as an example. And citing Justice Posner, suggested that:

"all literature is interactive…Literature when successful draws the reader into the story, makes him identify with the characters, invites him to judge them and quarrel with them, to experience their joys and suffering as the reader's own".[163]

However, the issue is not whether interactivity per se presents challenges to copyright, but rather, concerns problems caused by a specific type of interactivity. Justice Scalia arguably cites two examples of interactivity in his reasoning, a literal interactivity – where the 'audience' participates in their reception of the work. And a somewhat abstract interactivity – where the 'audience' engages with the work on a subjective cerebral level. These are not strict definitions, nor are they precise terms, but instead describe the type of interaction taking place. As such, for conciseness and ease they will be classed more broadly as 'traditional interactivity'. For the most part, this 'traditional interactivity' is the understanding of interactivity that courts and jurisdictions have applied when assessing video games and similar interactive creations worldwide. However, these traditional types of interaction do not encompass all the interactivity which takes place in video games and similar interactive works.[164] Whether the type of interaction causes difficulties for copyright analysis is largely

[158] *Galaxy Electronics Pty Ltd v Sega Enterprises Ltd* [1997] FCA 403.
[159] ibid.
[160] *Brown v Entertainment Merchants Association* (2011) 564 US 786.
[161] ibid. Although it is worth noting that this was in the context of the challenges of interactivity for the purposes of freedom of speech.
[162] ibid.
[163] ibid.
[164] 'interactivity' as a general term has been described as unhelpful, diluted by its broad and diverse use, defeating its efficacy as a meaningful and concrete definition. See Espen J Aarseth, *Cybertext: Perspectives on Ergodic Literature* (Johns Hopkins University Press 1997); James Newman, 'The Myth of the Ergodic Videogame' (2002) 2 Game Studies <http://www.gamestudies.org/0102/newman/> accessed 6 July 2022.

contingent on 'player participation', or what is sometimes termed in video game studies as "agency".[165] Like interactivity, player participation or agency per se is not what makes these new types of works unique, but rather it has to do with the nature of the participation and agency. Specifically, the nature of this participation and agency can be understood and distinguished through the following related, and overlapping qualities: proactive participation, as opposed to passive participation or reception, meaningful agency as opposed to arbitrary agency, and participation that has an objective rather than subjective impact.

Proactive participation as the name implies involves active participation in the audiences experience of the work. There is a spectrum of examples of what constitutes active participation, but the two most general and common types of participation would be decision making and player 'input' – such as the pressing of buttons, or the movement of some kind of control stick or mouse.[166] Essentially, the participation shapes or dictates how the player engages with the work. This is in contrast to works which predominantly "imply mostly passive viewer participation"[167], where the work and the experience of the work exists independent to the audience. Films are a good example of this, and this is recognized by the US Copyright Act which notes that audiovisual works are works which are composed of a series of images "intrinsically intended to be shown"[168]. An analogy could be made between the movements of a mouse or pressing of a key to the turning of the pages of a book. Or perhaps even the rewinding of the film and starting it from the halfway point. But such an analogy is fundamentally a weak one, since it overlooks the *intrinsic* and *intended* manner in which these works are to be appreciated. The closest analogy would be the choose-your-own adventure but even then, the interaction is arguably ancillary, as the interaction is more concerned with informing the reception and communication of the work rather than forming the actual experience of the work itself. Regardless, the interaction in choose-your-own adventure novels can be distinguished on both the latter factors of meaningful agency and objective impact.

[165] Noah Wardrip-Fruin, Pat Harrigan and Michael Crumpton (eds), *First Person: New Media as Story, Performance, and Game* (MIT Press 2004). See further Chapter 5.
[166] ibid.
[167] Ramos and others (n 25).
[168] Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified at 17 U.S.C. § 101).

Meaningful agency refers primarily to the freedom to make meaningful choices. Choices which reflect player intention, and choices which have an effect on the 'world'.[169] As Mateas stresses:

"This is not mere interface activity. If there are many buttons and knobs for the player to twiddle, but all this twiddling has little effect on the experience, there is no agency. Furthermore, the effect must relate to the player intention. If, in manipulating the interface elements, the player does have an effect on the world, but they are not the effects that the player intended…then there is no agency."[170]

In the case of a choose-your-own adventure novel and the decisions made, there are ordinarily few actual options available to the player, at least in the traditional physical copies of these books. As such, for these traditionally interactive works, it is difficult to say that the choices meaningfully reflect the players intentions since the player is merely picking from a limited and pre-determined set of outcomes. Any agency in choice is offset by the highly deterministic nature of that choice.[171]

Related to this is the extent of objective impact. Objective impact means that the actions and decisions of the player manifest in ways that are observable, and which ultimately affect and manipulate the work itself. For instance, choices made by a player in a video game could be perceived either in the code, visually in the game display, or in the resulting gameplay experience itself. Similarly, there are interactive art exhibits where an 'interactor's art adds to or forms part of the existing exhibit and thus the interaction can be said to have an objective and observable consequence on the existing 'underlying' work.[172] As such, whilst there is arguably an interaction between an audience and characters in a novel – where in a post structuralist Barthes-style analysis the reader would 'interact' with the text by supplanting meaning and context through

[169] Michael Mateas, 'A Preliminary Poetics for Interactive Drama and Games' (2001) 12 Digital Creativity 140.
[170] ibid.
[171] Wardrip-Fruin, Harrigan and Crumpton (n 135) pg 51.
[172] 'TeamLab Borderless: MORI Building DIGITAL ART MUSEUM' <https://borderless.teamlab.art/> accessed 16 August 2021.

their own subjective experiences[173] – the absence of any observable impact on the locus of that interaction, the work, distinguishes the nature of the interaction.

What these factors together describe then is a work where audiences can *truly* interact with the work, and the sum of these qualities is an experience of interactivity which for present discussions will be termed contemporary interactivity.[174] For contemporary interactive works, the work is active and inchoate, where creation and participation is concurrent. As such, the interactivity is not merely a vehicle to experience the work, but rather the interactivity and experience is the work itself. And whilst these differences may seem largely academic, as the following sections will demonstrate, protecting these works which utilize and centralize this contemporary interactivity presents practical obstacles and consequences for copyright. However, before addressing the problems which this contemporary interactivity causes, it is worth first elaborating on the kinds of works which present this interactivity, and which will form the focus for this thesis.

The most common example of interactive creations which implement contemporary interactivity, and which have created problems for copyright analysis are video games. This is not to say all video games, especially since certain older games may not exhibit this contemporary interactivity, and arguably certain narrative story games such as Telltale's *The Walking Dead*, or the Visual Novel genre rely on interactivity closer to the traditional interactivity present in choose-your-own adventure novels. Nonetheless, video games can and frequently exhibit the interactivity which places player participation and meaningful agency at the forefront. Games in the MMORPG genre, and open world games often present players with the significant agency which accompanies this interactivity. Moreover, "in recent years, authorial tools are increasingly embedded into video games".[175] Blurring the boundaries of creation and co-creation and blurring the boundaries of the work by extension. Crucially, video

[173] Roland Barthes, 'The Death of the Author' in Stephen Heath (tr), *Image, music, text: essays* (13. [Dr.], Fontana 1977).
[174] To reiterate, interactivity is a term that has disparate meanings, see 5.5.1 for examples of how interactive meaning has been described. The present definition – contemporary interactive, is used here to broadly describe the kinds of interaction which introduce conceptual challenges for copyright analysis.
[175] Greg Lastowka, 'Copyright Law and Video Games: A Brief History of an Interactive Medium' [2013] SSRN Electronic Journal <http://www.ssrn.com/abstract=2321424> accessed 9 April 2019.

games are a typical example of a creation where there is frequently an intersection between traditional ‘creative’ characteristics protected by copyright, and interactive characteristics which ordinarily are underscored by software, treated as functional and therefore beyond copyright’s remit.

In contrast, interactive works that are predominantly software rather than game are not a type of creation which fall within the remit of difficult contemporary interactive creations. Despite satisfying the criteria for a creation with contemporary interactivity, they are differentiated on the basis that their interactivity is functional rather than expressive. Presenting fewer challenges to copyright as a framework which ostensibly protects creative works. This is not an easily made distinction, and will be discussed further in the following section, but the primary factor is that the interactivity of these works is ‘functional’ or ‘conclusion driven’ rather than being ‘creatively driven’ or ‘experience driven’. Meaning that the design and creation of the work is driven guided by an end goal which dictates the function and in turn the interaction – an example of this would be a software for word processing. As such, because the interaction is almost always strictly functionally dictated, it rarely ever falls within copyright’s remit, and accordingly rarely presents problems. Unlike with video games where the design of the interaction is frequently guided by the experience itself as a creative endeavour, and where there is a greater intersection of creative expressions traditionally understood by copyright with expressions which have functional qualities, but may not themselves be functionally dictated.

The challenging interactive works then tend to exist on this spectrum between creative software driven works, and functional software driven works, and hereafter references to interactive creations and interactivity refer to these software driven works that exhibit the contemporary interactivity which creates difficulties for copyright. Video games are the most typical and notable example of the former and are currently the interactive creation which most frequently creates problems for copyright and thus will be the primary focus of the analysis in the following sections.

2.3 – What problems does the interactive nature and the works embodying this nature present and why are they unique.

Courts have elected to treat the interactivity present in video games and similar interactive works as being no different from the traditional interactivity present in works such as choose-your own adventures. In doing so, they side stepped discussing if or how these works are different and overlook the implications that come with their differences. However, circumventing the discussion on this contemporary interactivity has not proven successful, and the classification of interactive creations has been and continues to be difficult for copyright law.

2.3.1 – An overview of the challenges facing contemporary interactive works

Contemporary interactive works like video games suffer from the same underlying obstacles which leave films and certain unconventional works simultaneously over and underprotected. They are multimedia works which have little formal recognition in copyright,[176] and are works where they are assessed by reference to other 'traditional' creative mediums of expression. Moreover, owing to their interactive nature, the already difficult task of protecting them as a multimedia work, assessing their material and immaterial form, and drawing their boundaries of protection becomes complicated. Since their interactivity makes it difficult to fix the work's object and subject for the purposes of analysis. For instance, a player's "agency"[177] can undermine assertions of authorial autonomy, which can accordingly displace authors and undermine copyright's expectations about author-audience relationships, and author-audience-work relationships.[178] Similarly unlike traditional interactive works, where the interaction is highly structured, interactors in these contemporary works can make significant and meaningful changes to the underlying creation. As such these works can be described as inchoate, leading to difficulties in pinning them down to their physical objects, and in circumscribing the work. Especially because copyright's boundaries tend to be drawn in relation to a work's corresponding physical objects,[179] therefore its ability to

[176] Or at least, as 2.32 will show, under most copyright systems.
[177] Wardrip-Fruin, Harrigan and Crumpton (n 169).
[178] See further 3.3.
[179] See further 3.5.

assess static and physical characteristics simultaneously with inchoate, fluid and intangible qualities is limited if not non-existent.

Related to both the absence of a corresponding object of reification and the construction of boundaries are the questions surrounding the 'interactive experience' itself and the extent to which that is addressed or even comprehended by copyright if at all. Questions only made more difficult by the vehicles for that 'agency' and 'interactive experience' – software and the often described by copyright – 'functionally dictated' code.[180] Meaning copyright must navigate the thin protection ordinarily conferred on software, separate original expressions from deterministic expressions, [181] and contend with potentially outdated and narrow precedents on software protection which may not reflect the contemporary landscape of creativity and originality in video games and interactive works. As such the challenges which face the protection of contemporary interactive works can be summarised as mostly concerning three of their predominant qualities – their multimedia nature, their inchoate nature, and the extent to which they are perceived or treated as software. These qualities will be discussed with greater depth in turn, focusing on video games as the most typical example of this kind of interactive creation.

2.3.2.1 – Multimedia

Video games are complex multimedia works which are comprised of multiple artistic elements including music, artwork, video, plot, dialogue, and of course, the software which facilitates the interaction with all the other artistic elements and underscores the entire work itself.[182] As such, various jurisdictions have taken different approaches to classifying and assessing them under their respective systems of copyright. For instance, British copyright law presently does not have any explicit category which recognizes and protects interactive works.[183] Accordingly, for British copyright, interactive multimedia works such as video games must be protected by reference to

[180] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84); *SAS Institute v World Programming Ltd* (n 84); Sam Castree, 'A Problem Old as Pong: Video Game Cloning and the Proper Bounds of Video Game Copyrights' [2013] SSRN Electronic Journal <http://www.ssrn.com/abstract=2322574> accessed 9 April 2019; Lastowka, 'Copyright Law and Video Games' (n 179).
[181] Ramos and others (n 25).
[182] ibid.
[183] Copyright, Designs and Patents Act 1988.

one of the existing categories of protection: literary, dramatic, musical, and artistic works, or otherwise as an entrepreneurial work such as a film.[184] The United States takes a similar approach and examines video games by virtue of their individual components, favouring "a distributive classification",[185] and seeks to assess each expressive quality against its respective medium. In other jurisdictions such as Canada, China or Italy, video games have been classified and treated predominantly as software with an accompanying graphical interface, whereas conversely, some jurisdictions like Korea have treated them as audiovisual works, choosing to protect them more as films rather than likening them to software.[186]

All these classifications are not without their problems, for instance, treating interactive creations as audiovisual works ignores the fact that the co-authors of films and video games are often different, and similarly, rights frequently sought by video game producers do not always reflect those sought by film producers. In addition, the neighbouring rights which are present in audiovisual works may not equally be present in video games,[187] and even setting aside rights issues, definitionally there is incongruence as well, since audiovisual works traditionally are "intrinsically intended to be shown, which is not the final purpose of video games".[188] By treating interactive creations as predominantly software, the opposite problem arises, where it overlooks both the recent technological advancements which have enabled sophisticated audiovisual design in interactive creations, as well as one of the contemporary industry trends of arguably "prioritizing other aspects of videogames—such as graphics and sounds—at the expense of innovative gameplay".[189] Furthermore, depending on the interactive work being examined, different treatment may be warranted, and identifying whether an interactive multimedia work is closer to an audiovisual work, or software is not straightforward. For instance, it is arguable that early video games are an entirely different breed of works to modern video games and contemporary interactive works as we understand them.

[184] ibid.
[185] Ramos and others (n 25).
[186] Andy Ramos Gil de la Haza, 'Video Games: Computer Programs or Creative Works?' <https://www.wipo.int/wipo_magazine/en/2014/04/article_0006.html> accessed 9 April 2019.
[187] Ramos and others (n 25).
[188] ibid citing 17 U.S.C. § 101.
[189] Yin Harn Lee, 'Play Again? Revisiting the Case for Copyright Protection of Gameplay in Videogames' (2012) 34 EIPR 865.

Whilst the first video games and modern interactive creations both have a "visual interface"[190], the audiovisual output between *Pong* and modern games such as *Skyrim* are hardly comparable.[191] The geometric and two-dimensional interface of *Pong* is a far cry from the three-dimensional open world of *Skyrim*. Interestingly, both typify the dominant trends for the video game industry during their respective eras, where historically, "the information technology (IT) component of video games dominated"[192] and graphics were accordingly simplistic and much closer to the underlying idea of the game. Whereas contemporary video games at least in comparison to their predecessors are much closer to cinematic works and in turn audiovisual works.[193] Many games now have lengthy cutscenes, highly detailed artwork, extensive dialogue and intricate plots. And yet at the same time, the proliferation of more 'cinematic' video games has not suspended the existence of 'software' driven works as made apparent by the lucrative mobile games market. Furthermore, there are still numerous video games which fall squarely between software driven and audiovisually driven, and leverage both mediums fully and in tandem. As such the question of whether interactive works are closer to software or audiovisual works will invariably turn on the work being examined at hand, and it may not even be correct to privilege one treatment over the other.

Considering then that the composition of an interactive work is variable, this might imply that the distributive or medium specific approach which enables a more flexible approach is more appropriate, since it theoretically could better balance audiovisuals and software by protecting them both albeit individually.[194] However, this approach is nonetheless unsatisfactory, as it fails to address the specific intersection of software and audiovisuals. And accordingly ignores the overall effect produced by the combination of software and audiovisuals in exchange for 'avoiding' the privileging of software or audiovisuals. Indeed, if a "series of related images…may be greater than the sum of its several or stationary parts"[195] then surely the sum of *all* composite elements of an

[190] Haza (n 190).
[191] Castree (n 184); Lastowka, 'Copyright Law and Video Games' (n 179); *Video Software Dealers Association v Maleng* (2004) 325 F Supp 2d 1180.
[192] Haza (n 190).
[193] Lee, 'Play Again? Revisiting the Case for Copyright Protection of Gameplay in Videogames' (n 193).
[194] Ramos and others (n 25).
[195] *Atari Games Corporation v Oman* (1988) 888 F2d 878.

interactive work may likewise warrant treatment holistically. The reasons for the various systems of classifications are myriad and not the focus of this paper, however, the existence, multiplicity and shortcomings of these systems crucially reveal numerous challenges for copyright's protection of interactive works. Including, the inherent difficulties in relying on existing definitions which can satisfactorily accommodate the variable nature of interactive works and their components. Adequately balancing the protection of an interactive work's respective components, and in doing so, the perhaps inevitable complications in identifying and/or dissecting a work's independent and interdependent expressions,[196] a task which may neither be possible or even appropriate. Culminating into the foremost challenge facing the protection of interactive multimedia works – the lack of any formal definition or category under copyright which acknowledges and treats video games and similar contemporary interactive works as a unique medium.

As contended in Chapter 1, the problem for film was that its reification under copyright was one which treated the protection of film as a purely physical artefact. As such, leaving the protection of any intangible qualities to be assessed by reference to analysis or precedents from other mediums. Overlooking the expressions unique to film, whilst over-privileging conventional expressions from other mediums. The over-underprotection of film is even more pronounced for interactive creations and video games. At the time of writing, there is no formal recognition of them as a unique medium under any copyright system. As such, even the thin protection afforded to films as physical objects is entirely absent in the case of video games. They are left to be protected only by reference to other mediums. Furthermore, not only is protection by analogy to another medium as already argued in the case of films – reductive, but it is arguably even more inappropriate for interactive creations. Because the importance of audiovisuals, plot, and various other elements may differ between films and video games.[197] The issues with film qua film and film qua artistic work are thus not only replicated but exacerbated. Since the suitability of borrowed rhetoric will invariably change depending on the work being examined, and the rhetoric itself may need to change in order to provide effective protection, leading to even greater uncertainties.

[196] Dan L Burk, 'Electronic Gaming and the Ethics of Information Ownership' (2005) 4 IRIE 39.
[197] As chapter 3 and 4 will explore and discuss further.

As such, ensuring appropriate protection proves difficult for interactive multimedia. Not only because the analytical tools for protection are mostly limited to those borrowed or adapted from other mediums, but also because even within the work, assessing the relative importance of each respective expression is a task that varies depending on the precise composition of that interactive work. Additionally, identifying the scope of protection and providing effective protection is further complicated by the rules of protection on software – which tend to limit the scope of protection, as well as the shifting importance of software which can only be understood on a case by case basis. As section 2.34 will discuss further, striking the balance between an interactive work's software and 'functional' components, against its audiovisual outputs has not been a straightforward or settled task for video game academics.[198] As such, an interactive work's 'fluid' and frequently variable composition thus presents significant challenges for analysis structurally and even in a non-copyright formalistic sense. This is then further compounded by copyright's lack of definition and its reliance on rhetoric from other mediums, which in turn imports copyrights internal bias against software, and its supremacy of traditional expressions, especially those of a literary and narrative nature. Alongside these difficulties are the problems which arise out of the interactive work's inchoate nature.

2.3.3.2 – Inchoate Nature

Contemporary interactive works can be said to be inchoate for two interconnected reasons. They are inchoate in the sense that by design, they are a work which is intended to be 'played' or 'interacted with'. As such, significant parts of the work cannot be said to be static, and arguably the most important aspect of the work – the experience, is dynamic. By extension, they are also inchoate works because they are contingent on extrinsic participation and arguably are incomplete until they are 'played'. As such the task of identifying the protected work and its remit is complicated because there are fewer static qualities which can be used to extrapolate, anchor and identify the expressions underlying the work. Likewise, with the importance of player

[198] See further the discussion in Chapter 5.

participation, and with control ceded towards players, how and when to localize the work in objects becomes ambiguous.

It was noted previously that in copyright's grant of protection and its assessment of infringement, it tends to identify expressions, especially metaphysical expressions by abstracting away from the static, physical qualities of the work which embodied them. As such, expressions which tended to be protected were those more obviously traced to their physical manifestations. However, as Lastowka observes:

"a song has a beginning and an end. A photograph has four corners. Video games, by contrast, are inchoate media. They must be played to be experienced, and no two players will play a video game in exactly the same manner. So when comparing two video games, how can a court obtain a firm sense of the copyright-protected work?"[199]

This is not a straightforward question to answer and there are additional doctrinal and theoretical queries. For instance, to what extent is it appropriate for a court to identify expressions through its static qualities, especially if they are expressions which fundamentally exist only in experience and through interaction?[200] Alternatively, should the static expressions instead be dissected from the dynamic, by for example dissecting the vehicle of the interaction – the software and code – from the otherwise traditionally static qualities like the audiovisuals? And even if possible, is such a separation is warranted? In extending rhetoric concerning static objects to assess inchoate creations, one approach which courts have taken is to analogize video games to a similar inchoate media – a play.[201] Likening the script in a play to a video game's underlying code, as a static aspect of the work which arguably anticipates and pre-empts the dynamic inchoate experience. However, there are several issues with this approach. Firstly:

"It was (and still is) quite difficult for the average legal professional to distinguish between code that is creative and code that is routine and functional. Therefore, in

[199] Lastowka, 'Copyright Law and Video Games' (n 179).
[200] See chapter 5 which explicitly considers this.
[201] Lastowka, 'Copyright Law and Video Games' (n 179).

cases where the code was not admittedly copied verbatim, the "script" of the video game was actually less accessible to the jurist than the game's performance".[202]

More importantly, the rules surrounding expressions in a playwright's script are going to be different to the rules surrounding the expressions in code and software which as the next section will demonstrate, includes presumptions which limit the available protection for expressions in or connected to the software. Making the analogy of a games code to a script is far from perfect. In any event, there remains the fundamental question of whether it is appropriate to rely on objects and static expressions to characterize the eventual and subsequent experience of the game, which does not come into existence until performed or played.

This question is even harder to answer in the context of online video games. Firstly, because of the nature of online games, the work is even more inchoate than in almost every other traditional media, since it will constantly be the subject of numerous 'patches' and updates. And whilst an analogy can be made to 'multiple editions' of a book being published; the analogy is a poor one both characteristically and practically. Most notably because the game itself is in constant flux as it is being constantly updated, rather than a book being published, which then is amended and has a new version being published later. The 'update' fundamentally does not affect the initial existing work, therefore the analogy is incongruous.

Alongside these problems are the further difficulties introduced by the interdependency of video games with their players and interactors. Where the bilateral or even multilateral nature of these works makes it more difficult to identify and dissect the authored original expressions than it ordinarily would be under the traditional unilateral dynamic which typify the works historically protected by copyright. A primary challenge which stems from the player interactivity in these bilateral and multilateral works is the erosion of one important condition for copyright protection – original authorship. It was previously discussed that copyright requires a work or protected expression to originate or be attributable to an author. This is a reflection of the historic authorial entitlement discourse from which copyright emerged and helps reiterate the

[202] ibid.

requirement that general abstract ideas – which cannot be attributable to authors – be precluded protection so that unfair monopolies are not conferred on copyright owners. However, the works from which the authorial entitlement rhetoric was developed are works which can be described as unilateral. They are created distinct from their audience and any audience interaction is intended to be subsequent and secondary. The work itself does not and is not intended to change.

In contrast, bilateral or multilateral interactive works are created with the intention of being interacted with, and with the expectation that the 'underlying' work be changed or even 'completed'[203] with the interaction. Invariably, this introduces a plethora of challenges such as the validity of asserting original authorship in the work, especially if it is considered 'incomplete'. Similarly, there are issues with new authorship or co-authorship, and in relation to all of these, the question of when is a work considered to be complete or have come into existence? Historically, courts have circumvented these difficulties by mostly discarding questions of interactivity and instead focus only on non-interactive expressions within the work, and identify those as the protected qualities of work for the purposes of infringement assessments.[204] Or, as discussed earlier, courts have analogised the contemporary interactivity in video games to traditional interactivity and accordingly avoided considering interactivity as a novel and new challenge to asserting authorship and in turn copyright.

For example, one argument that was accepted by courts was that "the animated sequences that served to entice customers to insert a quarter…were never controlled by players and therefore presented an invariable audiovisual display."[205] Similarly, courts ruled out arguments, such as the Copyright Office's assertion that the audiovisual work was "created randomly by the player and not by the author of the video game"[206] by identifying consistent components or sequences that were not subject to player modification or design and accordingly did not usurp the game designers underlying

[203] Wardrip-Fruin, Harrigan and Crumpton (n 169).
[204] Lastowka, 'Copyright Law and Video Games' (n 179); Kyle Coogan, 'Let's Play: A Walkthrough of Quarter-Century-Old Copyright Precedent as Applied to Modern Video Games' (2018) 28 Fordham Intell. Prop. Media & Ent. L. J. 381.
[205] Lastowka, 'Copyright Law and Video Games' (n 179).
[206] *Atari Games Corporation v Oman* (n 199).

authorship. As was explained by the court in *Artic*[207] "there is always a repetitive sequence of a substantial portion of the sights and sounds of the game".[208] As such, rather than confront the difficulties which player interactivity might present to original authorship and the associated questions of a works completion and fixation, courts instead identified elements within the work which were amenable to traditional authorship and instead focused on those qualities as the expressions for the purposes of establishing copyright and infringement. So much so that in rejecting a claim of 'player authorship' the court held that:

"Playing a video game is more like changing channels on a television than it is like writing a novel or painting a picture. The player of a video game does not have control over the sequence of images that appears on the video game screen. He cannot create any sequence he wants out of the images stored on the game's circuit boards. The most he can do is choose one of the limited number of sequences the game allows him to choose. He is unlike a writer or a painter because the video game in effect writes the sentences and paints the painting for him; he merely chooses one of the sentences stored in its memory, one of the paintings stored in its collection"[209]

Therefore, whilst the court recognised that playing a video game was somewhat comparable to traditionally creative and protectible endeavours, it concluded that there was not sufficient creative effort, nor enough creative freedom to make it an accurate and successful analogy. Yet, the legitimacy of eschewing the difficulties introduced with contemporary interactivity by emphasizing static elements or by diminishing the creative control which now exist for players is an increasingly precarious solution. If one assumes that interactivity *only* failed to present complications because of the limitations on that interactivity historically, then would that not mean increased interactivity would present a challenge to authorship assertions? Considering the exponential increases in video game complexity and the emergence of new breeds of interactive works, to continue to assert that interactivity is merely aggregative rather than creative completely overlooks the technological advancements made over the last

[207] *Midway Manufacturing Co v Artic International, Inc* (1983) 704 F2d 1009 (7th Cir).
[208] ibid.
[209] ibid.

few decades.[210] And with the existence of advanced player creation tools in games such as *Minecraft*, *Second Life*, *Spore*, the freedom afforded to players for creation and interaction are only growing.[211] As Coogan highlights:

"*Minecraft* is 'a creative space to build almost anything you can imagine'. Likewise, *World of Warcraft* is 'an online world of…limitless adventure.' These types of open-world games allow a vast array of possibilities for user interaction. This makes it nearly impossible to produce an entirely similar sequence of audiovisuals from game-to-game."[212]

Accordingly, if Coogan is correct that 'play' and 'interaction' in these games preclude the presumption in *Artic*[213] that there is always "a repetitive sequence of a substantial portion of the sights and sounds"[214], then how should or might we understand player contribution as a challenge to both authorship and to the stability and unity of works moving forward? As technology advances, and as player fluency in technological mediums similarly grows, the traditional "binary nature of copyright, dependent on a division between author and reader, or producer and consumer"[215] becomes increasingly disconnected from the contemporary conditions of play and creation. For example, there is the observation that players are increasingly, even in the course of ordinary and intrinsic play, constantly affecting and changing the games code directly and indirectly. As such, traditional copyright assumptions surrounding the relationship of authors, audiences and works, and the point which works are crystalized for the purposes of analysis and protection becomes destabilized and uncertain.[216] With increased emphasis on player participation, and greater control and freedoms afforded to players, the more inchoate the work and its expressions becomes. Bringing the work closer to an intangible experience and displacing it further away from the static objects

[210] Anthony Michael Catton, 'Mere Play or Authorial Creation? Assessing Copyright and Ownership of in-Game Player Creations (Part 1)' (2019) 2 Interactive Entertainment Law Review 57.
[211] Greg Lastowka, 'The Player-Authors Project' [2013] SSRN Electronic Journal <http://www.ssrn.com/abstract=2361758> accessed 9 April 2019; Erez Reuveni, 'Authorship in the Age of the Conducer' (2007) 54 Copyright Society of the USA 285; Coogan (n 208).
[212] Coogan (n 208).
[213] *Midway Manufacturing Co. v. Artic International, Inc* (n 211).
[214] ibid.
[215] Reuveni (n 215).
[216] For further discussion on the effects of players on the crystallization and unity of the work see Chapter 5.

and traditional authorial rhetoric which copyright ordinarily relies upon for identifying and circumscribing works.

An additional factor is the extent of freedom in cooperative play, and interactivity both between creators and players, and between players themselves in the context of MMORPGs (massively multiplayer online role-playing games). Where players are constantly affecting the underlying code and database, or authoring new 'creations' through avatars, and in the case where games *do* provide extensive tools for creating in-game creations, there are a plethora of ever changing and potentially copyrightable elements. There are of course also difficulties for asserting independent player authorship, and for challenging underlying authorship in interactive works, but such discussions warrant separate analysis and are beyond the scope of this thesis. Regardless, to continue to treat interactivity and player participation as irrelevant, and to overlook the implications which come with an inchoate work is to continue to reductively understand interactive works and will lead to further complications as the tools for player interaction keep evolving, and continue to challenge copyright's assumptions regarding author-audience-work relationships.

With the inchoate nature of video games is it not clear then when and where is the starting point for copyright's analysis and construction of protection. Copyright has declined to consider the issue, regardless of potential difficulties which emerge from the unique author-audience-work relationships. Moreover, since these works are inchoate and dynamic, at the minimum it seems that copyright's dichotomy and sliding scale of protection which predominantly moves from physical to immaterial will be difficult to apply if not inappropriate altogether. Equally, as latter discussions will return to and expand on, it is not clear how copyright can even identify inchoate works ab initio with its reliance on objects and physical characteristics, and with its presumption that there are fixed and static works which present themselves for accommodation and analysis.[217]

[217] See chapter 5 for further discussion.

2.3.4.3 – Software and functionally dictated expressions

During the earlier years of video games and video game copyright, many 'expressions' in the work were co-dependent with software and subject to technological limitations, meaning that they had to contend with the rules on software and in turn afforded narrow protection. However, although recent interactive works have fewer technological limitations, copyright has nonetheless struggled in identifying the remit of protection for video games with consistency or coherently. This is in part because, notwithstanding advancements made in the video game medium – which facilitate greater technological and creative freedom, video games remain subject to the thin protection ordinarily available to software, and the rhetoric on function which accompanies it. Together, the rules on software protection and the principles underpinning those rules get imported into the analysis of interactive works, leading to an inherent presumption of thin protection for interactive works, or at least for a significant element of that work. As a result, in the interest of balance and effective protection against non-literal copying, other qualities and expressions in the work must be given more comprehensive protection to compensate, further skewing copyright's existing over-under protection problem.

The precepts behind Copyright's reluctance to provide broad protection for software derive from copyright's existing general exclusion of ideas and principles from copyright protection,[218] as well as the maxims that technical necessity and technical limitations can or will directly undermine authorial originality, and by extension, copyrightability.[219] Software itself is capable of attracting copyright protection, as well evidenced by the EU's software directive.[220] And similarly, the house report on the US 1976 Copyright Act, where it confirms that "the term 'literary works'…also includes computer data bases, and computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the

[218] Article 1(2) of the Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.
[219] Dan L Burk, 'Method and Madness in Copyright Law' [2007] SSRN Electronic Journal <http://www.ssrn.com/abstract=999433> accessed 9 April 2019; Pamela Samuelson, 'Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection' (2007) 85 Texas Law Review.
[220] Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

ideas themselves."[221] The difficulties then originate not from a general unprotectability of software, but the manner in which software is understood and protected by copyright: as a predominantly 'functional' creation. And by extension, the challenges that functionality presents for interactive works when applying the idea expression dichotomy, and the related merger doctrine and scene a faire doctrine.

The fundamental policy which underscores copyright's treatment of functionality is that it can and must only be afforded thin protection, and little protection beyond the literal code itself is available. Because as the CJEU affirmed in *SAS*[222] "to accept that the functionality of a computer program can be protected by copyright would amount to making it possible to monopolise ideas, to the detriment of technological progress and industrial development".[223] As such, it is the illegitimate protection conferred by protecting functionality - such as a monopoly on methods of operation - which would unjustly prejudice the marketplace of ideas, that prohibits protection in the first place.[224] This is similarly supported by *Navitaire*[225] which explains that the "business logic"[226], the "non-textual copying"[227], was unprotectable, because "to permit the 'business logic' of a program to attract protection through the literary copyright afforded to the program itself is an, unjustifiable extension of copyright protection".[228] Stressing that circumventing the unprotectability of computer language and ideas by identifying an abstracted function from those ideas would undermine the underlying policy which established the unprotectability in the first place; and that in any event such an extension of copyright is discouraged if not contradictory to the policy itself.

The abstracted expressions that are protected then are at the lowest level, offering a thin level of protection similar to early literary copyrights, and permitting far greater non-

[221] John C Phillips, 'Sui Generis Intellectual Property Protection for Computer Software' 60 Geo. Wash. L. Rev 997 citing FN60. H.R. REP. NO. 1476, 94th Cong., 2d Sess. 52 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5667.
[222] *SAS Institute v World Programming Ltd* (n 84).
[223] ibid.
[224] Pamela Samuelson, Thomas C Vinje and William R Cornish, 'Does Copyright Protection Under the EU Software Directive Extend to Computer Program Behaviour, Languages and Interfaces?' [2011] SSRN Electronic Journal <http://www.ssrn.com/abstract=1974890> accessed 9 April 2019.
[225] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).
[226] ibid.
[227] ibid.
[228] ibid.

literal copying than ordinarily afforded to traditional works at present. Indeed as Justice Arnold noted in *SAS*[229], referring to the explanatory memorandum in Directive 91/250[230], (now the directive 2009/24/EC) he stressed "the main advantage of protecting computer programs by copyright is that such protection covers only the individual expression of the work and thus leaves other authors the desired latitude to create similar or even identical programs provided that they refrain from copying."[231] And the US case *Oracle*[232] has likewise confirmed that "So long as the specific code used to implement a method is different, anyone is free under the Copyright Act to write his or her own code to carry out exactly the same function"[233]. As such, software copyright has struck the balance between proportionate and effective protection as heavily in the favour of the former, and prioritizes the freedom to create 'competing' programs.

Unfortunately for video games and similar interactive works, since their composition includes software, there are numerous established precedents and or broad principles on the protectability of software which bleed into the discussions on their protectability. Even though the analogy between software and video games is an imperfect one, and as such, the direct application of principles from software may not be appropriate for assessing video games and interactive works. Specifically, there is one significant consequence for interactive works which flows from this protraction of software discourse - the broad and implicit assumption that software design is necessarily 'functionally dictated' and therefore, software design in interactive works must also be functionally dictated. Which in turn makes expressions connected to or grounded in software more likely to be precluded protection and makes dissecting original expressions from the 'functional software' expressions even more difficult. Related to this is the issue of 'technological medium', where the variable technological sophistication of a work has informed questions of functionality and as a result impacted the analysis of even traditionally understood and protected expressions. And

[229] *SAS Institute v World Programming Ltd* (n 84).
[230] ibid at 41, citing Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs; now Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.
[231] ibid.
[232] *Oracle America v Google*.
[233] Oracle America Inc v Google Inc Unreported May 31, 2012 (D (US).

together, they have arguably complicated copyright's already inconsistent application of the idea-expression dichotomy.

2.3.4.3.1 – 'Functionally dictated' expressions

Although the policy underpinning the protectability of function or 'functional behaviour' prohibits protection on the basis that it creates an unfair monopoly on ideas, as already noted, if the underlying code is identical,[234] or if the expressions of the work are identical, then infringement could be established.[235] As such, it is not that functionality is unprotectable per se, but rather, that as *BSA*[236] explains "expressions dictated by their technical requirement cannot meet the criterion of originality".[237] More specifically, that expressions which are dictated by the objective of function cannot be considered original, because the necessity of that expression for the 'performance' of the work prevents the expression from being divorced from the ideas enabling the function. Alternatively put, it is the determinist nature of function which undermines an author's choice and in turn originality.[238]

This interpretation can be found with the court's application of the merger doctrine in *BSA.*[239] The CJEU explaining that "where the expression of…components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable."[240] It would also seem that it is not the mere absence of freedom or choices for an author to exercise creative judgement, though that remains important, but it is the nature of that freedom and choice. It is contented that limited refers not so much to a limited number of choices, but whether the choice is limited in nature. The judgement in FAPL – that "football matches, which are subject to rules of the game, [leave] no room for creative freedom for the purposes of copyright"[241] similarly affirms this reading. Whilst there are infinite permutations of choices which exist in football,

[234] *SAS Institute v World Programming Ltd* (n 84).
[235] ibid; *Oracle America v Google* (n 236).
[236] *C-393/09 - Bezpečnostní softwarová asociace* [2010] I – 13971.
[237] ibid.
[238] Burk, 'Method and Madness in Copyright Law' (n 223).
[239] *BSA* (n 240).
[240] ibid.
[241] *FAPL* (n 83).

owing to the overarching 'functional' objective of winning, those choices both drastically reduce, and are displaced from their authorial origin, and instead are derivative of the function of winning. This rhetoric can likewise be identified in American copyright law on software,[242] being traced all the way back to Baker v Selden.[243] As Burk notes "the rule that functional and expressive features must be physically or conceptually separable in order for the latter to receive any copyright protection parallels the merger rule in the idea/expression doctrine."[244]

In the context of pure software cases, the presumption that functional expressions are not original is likely to be true. However, the assumption that this is equally true for interactive works and video games, is less clear. If the restriction on protecting functionally dictated expressions turns not on function per se but on the deterministic nature of the choice, then it may be possible to identify expressions in video games that despite their functional nature, are capable of being creative and serve purposes beyond pure function. Consider for instance the *Resident Evil* series where the early games "have a deliberately sluggish and down-tuned pace to their combat systems so as not to undercut atmosphere and tension".[245] Specifically, *Resident Evil 1* & *2* where the creators specifically leveraged 'tank controls' and 'fixed cameras' to accentuate the horror narrative and heighten player vulnerability. The former requiring players to stop before changing directions, preventing them from moving seamlessly and shooting simultaneously[246] like in faster paced shooter games, and the latter deliberately obfuscating the information available to players until they enter a new 'scene'.

This direct intersection of mechanics and game narratives is one of the primary types of game design. As Totten in *An Architectural Approach to Level Design*[247] explains, in

[242] Dan L Burk, 'Owning E-Sports: Proprietary Rights in Professional Computer Gaming' (2013) 161 University of Pennsylvania Law Review 1535 citing 'Method and Madness in Copyright Law' (n 180).
[243] *Baker v Selden* 101 US 99 (1879).
[244] Burk, 'Method and Madness in Copyright Law' (n 223).
[245] 'The Problem With Games That Scare' <https://www.gamasutra.com/blogs/MartinAvenue/20101208/88584/The_Problem_With_Games_That_Scare.php> accessed 10 April 2019.
[246] Tank controls require players to stop before turning, preventing turning and moving at the same time.
[247] Christopher W Totten, *An Architectural Approach to Level Design* (CRC, Taylor & Francis Group 2014).

order to "emphasize the concept of 'friendship'"[248] – the abstracted 'idea' behind the game *Thomas Was Alone* – the creator introduced a set of characters (in the form of rectangles), each with unique abilities which aid the other characters. For instance, one rectangle could float, another could act as a bridge, etc. Encouraging players to play and 'perform' the game in a style which reflected that original concept of friendship. However, mechanically speaking, none of these decisions were *strictly* necessary for the game to function 'technically'. It could be argued that the 'tank controls' were a product of the objective of a 'suspenseful horror game' and therefore not original. And similarly, that the abilities of the rectangles stem from the idea of 'friendship' and thus 'predetermined'. However, to do so implies a broad application of determinism, and one which sits poorly with originality assessments in traditional media, and with the idea-expression dichotomy rhetoric used to protect certain expressive ideas or highly abstract expressions. For instance, such a broad interpretation of determinism seems difficult to reconcile with the expressions deemed original in cases such as *Designer Guild*[249] or *New English Teas*.[250] Indeed if 'functional' ceases to pertain specifically to 'technical function', would the plot of a horror novel not also be functionally dictated by a broad objective of 'suspenseful horror novel'? What about co-dependent superpowers in a superhero novel about friendship? Is that a creative or functional decision? Even within software caselaw, it seems that the presumption of technological determinism isn't necessarily so broad, since a graphic user interface, when not dictated by "technical function"[251], is capable of being protected.[252] And if *Tetris v Xio*[253] is correct, expressions linked to function are not automatically presumed unprotectable.[254]

Since creative expressions in traditional media can be protected despite having a 'creative function', then that cannot be what prohibits game expressions that have functions which aren't technically driven or solely utilitarian. Moreover, *Navitaire*[255] distinguishes the business logic of a program from the plot of a novel, stating that unlike a plot, it is "merely a series of pre-defined operations intended to achieve the

[248] ibid.
[249] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[250] *Temple Island Collections v New English Teas* (n 102).
[251] *BSA* (n 198) 49.
[252] ibid.
[253] *Tetris Holding, LLC v Xio Interactive, Inc,* 863 F Supp 2d 394.
[254] *Tetris Holding, LLC v Xio Interactive, Inc,* 863 F Supp 2d 394 at 405.
[255] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).

desired result in response to the requests of the customer."[256] As such, considered alongside earlier conclusions that the exclusion of functional expressions from copyright stems from the usurping of authorial choice, it seems reasonable to suggest that the 'technical' nature is less significant than expressive freedom and authorial intent. However, cases such as *Nova v Mazooma*[257] nonetheless still construct the nature of a video game as primarily "a computer program having all the necessary coding to function."[258] Courts routinely conflate function with determinism, despite the availability for creative exercise when designing game mechanics. Indeed, the choices in *Resident Evil 1* & *2* are clearly not mandatory to the game functioning on a broad level, and 'functionally' the game could and does work without fixed cameras and tank controls. As evidenced by not only other games in the survival horror genre, but even in their remake of *Resident Evil 2* where the developer team explicitly tested and considered whether they wanted to make the stylistic choice of retaining the control and camera system.[259] Interestingly, the absence of the 'old mechanics' in the remake raises a related problem and potential explanation for why function in video games has been treated differently than function in traditional media – technological limitations. Where the authorial originality in a video game may be curtailed or even undermined by the technology implementing the expression, especially where the functional objectives are indissociable from the underlying technological requirements and restraints.

2.3.4.3.2 – Software as a medium and technological 'limitations' on function

Although not the first game to use it, *Resident Evil* was almost inarguably *the* game which popularised tank controls, especially within the survival horror genre which itself was born from the *Resident Evil* series.[260] Indeed "the army of clones [*Resident Evil*] inspired frequently used the tank control scheme"[261] to the extent that "it was so prevalent that at one point some people felt Tank Controls were best used for horror

[256] ibid.
[257] *Nova Productions Ltd v Mazooma Games Ltd and others* [2007] Bus LR 1032.
[258] ibid.
[259] 'Resident Evil 2 Dev on Tank Controls and Fixed Cameras: "The World Has Moved On"' (*VideoGamer.com*) <https://www.videogamer.com/news/resident-evil-2-dev-on-tank-controls-and-fixed-cameras-the-world-has-moved-on> accessed 10 April 2019.
[260] Ian Boudreau, 'Opinion – Unfriendly Controls Can Make Horror Games Better' (*Game Informer*) <https://www.gameinformer.com/b/features/archive/2016/10/31/opinion-unfriendly-controls-can-make-horror-games-better.aspx> accessed 10 April 2019.
[261] ibid.

games *even though they came out of a technical limitation and not any design philosophy*."[262] This contrast between the initial implementation and subsequent application of tank controls is illustrative of one of the primary difficulties, especially for earlier games, in dissecting function and expression in video games.

The 'function' of tank controls, at least on one basic level was to enable smoother interaction with the existing 'fixed' cameras, so that players could maintain the direction they were moving even after camera angles changed, which would also prevent players from inadvertently reversing if and when the camera changed.[263] Similarly, the fixed cameras meant that game designers could hide information from players and similarly, stage jump scares through pre-rendered backgrounds. Which helped circumvent "the limited processing power available during the original PlayStation era"[264]. However, the combination of fixed cameras and tank controls has a creative and expressive purpose as well. For instance, as some players have described: "tension is built into this control scheme – if something is chasing you, you have to stop and then watch as your character slowly turns around to face the threat. It evokes that nightmare of running away from something, but finding that your legs don't work properly".[265] In fact, tank controls were so popular that "survival horror games continued to use tank controls even when new hardware allowed games to use fully-rendered 3D scenery with cameras that followed the player".[266] And similarly, the remake has been distinguished from the original, with some players going as far as to claim that it now resides in an entirely new genre: "while the original game focused on exploration and fight-or-flight strategy, this version is about aiming well without panicking and wasting ammo. Basically, it's a shooter."[267] The history and impact of tank controls raises two important questions for copyright. Firstly, to what extent are mechanical expressions that have 'narrative' qualities or otherwise similar traditionally recognized 'creatively and artistically expressive' qualities capable of being original

[262] Adam Dodd, '[Horror Declassified] An Examination Of Tank Controls' (*Bloody Disgusting!*, 23 March 2013) <https://bloody-disgusting.com/news/3224958/horror-declassified-an-examination-of-tank-controls/> accessed 10 April 2019.
[263] Jenna Stoeber, 'Resident Evil 2 Is Not the Remake You Think It Is' (*Polygon*, 25 January 2019) <https://www.polygon.com/videos/2019/1/25/18197752/resident-evil-2-remake-capcom> accessed 10 April 2019; Dodd (n 266); Stoeber.
[264] Boudreau (n 264).
[265] ibid.
[266] ibid.
[267] Stoeber (n 267).

expressions for the purposes of copyright despite also serving a technical or functional purpose? And conversely, what about traditionally protected expressions which are driven by technical or functional purposes? Furthermore, how does or can copyright understand the expressive impact of mechanics, narrative or otherwise, in video games and interactive works? What if an expression was at the time functionally dictated – such as tank controls in their inception – but owing to subsequent technological developments the same or similar expression no longer is. The answers to all these questions, at least for copyright, seem to have been elusive. As the next two sections will show, copyright's approach to answering these questions has been unpredictable, with inconsistent and sometimes even incoherent judgements. Struggling especially with divorcing function and technology from creative expressions both those traditionally protected by copyright and those unique to copyright.

2.4 – Underprotection but worse

Chapter One concluded that certain expressions and ideas have been underprotected by copyright. These have sometimes been the same ideas or expressions which copyright has protected elsewhere yet elected not to protect in a particular case; or are ideas and expressions similar and analogous to those protected elsewhere. In particular, copyright has overlooked and refused protection to certain ideas when they were not obviously compatible with the subject matter in which ideas have otherwise been protected, despite the fact that these ideas serve similar purposes, or at least are in nature similar to ideas which copyright has protected previously. To some extent, this is because the rule on functionally dictated expressions is poorly designed, and largely contingent on how and where expressions and ideas are abstracted to in the first place. Similarly, unconventional or non-traditionally understood expressions have also been afforded fewer avenues of protection, because the application of the idea-expression dichotomy and the abstraction tests examines these expressions against ideas which may not be relevant for the specific assessment and appropriate for the subject matter.

These problems persist in copyright's assessment of interactive works such as video games, with even more contradictory and erratic judgements. This is in part because copyright historically tends to approach abstraction and the identification of ideas and expressions through objects first, followed by subject matter. Which owing to the

absence of a formal category for interactive works in copyright's list of protected objects and subject matter of protection, their multimedia composition, and their inchoate nature, has made video games difficult to accommodate within its framework of protection. Furthermore, since many of the ideas and expressions in these works are or have been underscored by software, the principles on non-protectability of software have been imported into the analysis of these ideas and expressions, irrespective of whether it is appropriate to do so, leaving some ideas and expressions with thinner protection than they otherwise would receive traditionally.

The problems introduced by software are best demonstrated by some of the early videogame cases. This is because historically, the technological limitations governing the creation and design of video games meant that not only mechanical expressions but even narrative expressions driven by technological or mechanical concerns were considered unprotectable. This was likely to do with the fact that, "In the early years, the limitations of computer science meant that games such as *Spacewar, Asteroids* and *Pong*, were no more than pixels illuminating a monochrome screen. They used simple geometric shapes and had very basic functionality."[268] As such, even the traditional copyrightable qualities, such as the artwork, were much more closely bound to the idea underlying the game, and thus were harder to abstract and dissect from the game ideas. One significant example of this is *Atari v Amusement World*,[269] a non-literal copying case involving the aforementioned *Asteroids*, and the allegedly infringing game – *Meteors*.

Both games were early arcade cabinet video games, and involved a player controlling a spaceship, which could move around the screen and fire weapons. In both games numerous 'rocks' (asteroids or meteors), would drift around the screen and could be fired upon to break up into smaller rocks which then disappear when fired on again. And throughout both games numerous 'enemy spaceships' also appear and fire on the player spaceship. The court found that there were several other similar or identical features common to the games including: three sizes of rocks, the appearances of rocks in waves with each wave initially comprising of larger rocks, large rocks moving

[268] Haza (n 190).
[269] [1981] 547 F Supp 222.

slower than smaller rocks, the scaling of a large rock splitting into two medium and a medium into two small rocks, the destruction of a player ship on collision with a rock, amongst several other similarities to a total of 22. The court ultimately concluded that there was no infringement, partly owing to the differences (of which there were 9); but primarily because the court deemed most of the similarities "inevitable, given the requirements of the idea of a game involving a spaceship combatting space rocks and given the technical demands of the medium of a video game".[270] Concluding that similarities such as the spaceship needing to rotate, the ability to fire weapons which destroy targets, and even visual similarities such as the different shapes of rocks were scenes a faire or merged to the idea of "of a video game in which the player combats space rocks and spaceships".[271] Preventing the expressions from being considered original for the purposes of copyright. However, whether or not this rhetoric is correct, or still relevant in the context of recent technological advancements is questionable.[272]

Assuming that the court in *Amusement World*[273] is correct that the 'idea' of *Asteroids* is "a video game in which a player fights his way through space rocks and enemy spaceships"[274]; this does not mean the expressions that "the player must be able to rotate and move his craft,"[275], or that "rocks must move faster as the game progresses"[276] or even the idea "the game must be easy at first and gradually get harder, so that bad players are not frustrated and good ones are challenged"[277] are necessary or foreordained. Consider for instance, either of the two games from *Midway v Artic*[278]: *Galaxian* and *Space Invaders* – two games from the same era of *Amusement World*[279], both of which were fixed shooters where aliens descended upon the player. If one were to simply visually substitute the enemy aliens for enemy spaceships and space rocks, both games would then suddenly fit the 'broad' idea of the *Asteroids* game established in Amusement World, without either *Galaxian* or *Space Invaders* playing any

[270] ibid.
[271] ibid.
[272] Lastowka, 'Copyright Law and Video Games' (n 179); Steven G McKnight, 'Substantial Similarity between Video Games: An Old Copyright Problem in a New Medium' [1983] Vand. L. Rev. 1277.
[273] *Atari, Inc v. Amusement World, Inc* (n 273).
[274] ibid.
[275] ibid.
[276] ibid.
[277] ibid.
[278] *Midway Manufacturing Co. v. Artic International, Inc* (n 211).
[279] *Atari, Inc v. Amusement World, Inc* (n 273).

differently. Crucially, unlike in *Asteroids*, the players would not rotate or move their craft, but instead would be using a 'fixed shooter' control scheme.[280] Of course, there is the objection that such control schemes would in any event fall under the remit of unprotectable scenes a faires, but nonetheless the criticism that such expressions aren't 'necessarily' dictated by the underlying idea remains true. To reiterate, this is a symptom of copyright's approach to identifying functionally dictated expressions, where depending on the extent or manner in which the idea is identified, different interpretations or conclusions on what is functionally dictated or necessary can be drawn. Indeed there are plethora of games, which fit the Amusement World definition of the '*Asteroids*' genre yet nonetheless evidence different methods of expressing that idea.[281] Whether it be fixed screen shoot'em ups, side scrollers, or even FPS-RTS hybrids such as Microsoft's *Allegiance*, an online multiplayer space simulation game.[282] The existence of all these interpretations of the vague idea of a player fighting through space rocks and spaceships makes it difficult to argue that these expressions are necessary or dictated by that idea. Common perhaps, but not inevitable.

Similarly, the assertion that the game "must be easier at first and gradually get harder"[283], and the resultant conclusions that "therefore, the rocks must move faster as the game progresses"[284] and that "rocks cannot split into very many pieces, or else the screen would quickly become filled with rocks and the player would lose too quickly"[285] are incorrect determinist assessments. Firstly, game difficulty is as much an incentive for creative innovation as it is a restriction on game design, and contemporary markets for 'hard' video games such as *Dark Souls* emphasizes the demand for creatively difficult video games. [286] As such, there does not exist some kind of

[280] Where movement is restricted to a single axis, such as the x-axis in the case of Galaxian and Space Invaders.
[281] Some old such as Atari's Planet Smashers or Blasteroids, some new such as Super Mega Space Blaster Special Turbo, for more examples see: 'Asteroids Variants' (*MobyGames*) <https://www.mobygames.com/game-group/asteroids-variants> accessed 17 August 2021.
[282] 'Microsoft Allegiance on Steam' <https://store.steampowered.com/app/700480/Microsoft_Allegiance/> accessed 17 August 2021.
[283] *Atari, Inc v. Amusement World, Inc* (n 273).
[284] ibid.
[285] ibid.
[286] Jeff Marchiafava, 'How Modern-Day Difficulty Masters Create Challenging Games That Are Still Fun To Play' (*Game Informer*) <https://www.gameinformer.com/b/features/archive/2016/03/08/the-difficulty-of-difficulty-how-modern-day-difficulty-masters-create-challenging-games-that-are-still-fun-to-play.aspx> accessed 10 April 2019.

'business logic' analogous to that in *Navitaire*,[287] where customer demands expressly limit authorial freedom of expression in designing the software. Degrees of difficulty and the expressions which effect that difficulty are subject to the author(s) discretion.[288] Moreover, the assumption that games have and *must have* 'progressive' difficulty is a design rhetoric of the past, and there exist several games, especially modern socio-political games which discard the "binary win-lose logic".[289] And instead approach design with formative objectives which dictate end game conditions rather than designs originating from 'win' or 'lose' conditions. For instance, there is the genre of "you-never-win games", where there is "a goal that the player is never meant to achieve, not because of a player's lack of aptitude but due to a game design that embodies a tragic form" An example of this would be *New York Defender (2002),* where: "no matter how frantically a player shoots down airplanes aimed at the twin towers, he is doomed to fail because the number of airplanes increases exponentially in relation to his firing."[290]

Secondly, from a technological perspective, the notion of 'screens' during the era of *Amusement World* and contemporary interactive works are vastly different. Historically, since "video games present only one unchanging background, some courts logically might treat video games as standard board games"[291] and as such "compare only their static artistic features"[292]. However, the evolution of video games and interactive media challenges this reductive treatment of the 'background' or the in the case of *Amusement World*[293], the "screen"[294]. Take for instance the virtual reality 'adaptation' of *Asteroids – Captain 13 – Beyond the Hero,* where the improved processing power, *and* the three-dimensional interactive virtual environment provided makes the historic limitation on 'not filling the screen with rocks' for either aesthetic or difficulty purposes obsolete.[295] This fixation on artistic elements and the comparison of these elements is a pervasive trend throughout copyright discourse on video games,

[287] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).
[288] Marchiafava (n 290).
[289] 'I Lose, Therefore I Think: A Search for Contemplation amid Wars of Push-Button Glare' (2003) 3 Game Studies <http://www.gamestudies.org/0302/lee/> accessed 10 April 2019.
[290] ibid.
[291] McKnight (n 276).
[292] ibid.
[293] *Atari, Inc v. Amusement World, Inc* (n 273).
[294] ibid.
[295] 'Captain 13 - Beyond the Hero' (*Oculus*) <https://www.oculus.com/experiences/gear-vr/1410666592329728/> accessed 10 April 2019.

despite the arguable relevance to the case at hand, or for the medium of interactive works and games themselves. The reason for this being a combination of: the absence of an formal corresponding category of protection under copyright, the incompatibility of expressions connected to software with copyright's idea-expression dichotomy and rules on functional expressions, and the simpler analysis enabled by comparing static artistic qualities rather than assessing dynamic and inchoate interactive characteristics.

Two cases which similarly demonstrate the challenges arising from the absence of a formal category for interactive works, and the privileging of visual similarities or indeed static qualities over functional or arguably 'interactive' qualities are *Nova v Mazooma*[296] and *Incredible Technologies Inc v Virtual Technologies*.[297] The issue in *Nova v Mazooma* concerned coin operated cabinet 'pool' game, based on the real life sport. With the absence of any videogame specific category, the protection fell to be assessed by reference to the categories in the UK's list of protected subject matter, and initially the copyright protection sought concerned artistic works – the graphics and visual outputs of the games, literary works – the design notes and program to implement the game, a dramatic work embodying the game itself and film copyright. Ultimately the dramatic work claim and film copyright claim were discarded, and on appeal the case only considered the claims pertaining to artistic and literary works. At first instance, the dramatic work claim was discarded by the court on the basis that:

"it is not a work of action which is intended to be or is capable of being performed before an audience. On the contrary, it is a game. Although the game has a set of rules, the particular sequence of images displayed on the screen will depend in very large part on the manner in which it is played. That sequence of images will not be the same from one game to another, even if the game is played by the same individual. There is simply no sufficient unity within the game for it to be capable of performance."[298]

As such, the fundamental inchoate nature of the game caused by players precluded any possibility for the work to be protected by virtue of dramatic works, arguably the

[296] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[297] *Incredible Technologies, Inc v Virtual Technologies, Inc* [2005] 400 F3D 1007 (7th Cir).
[298] *Nova v Mazooma* [2006] EWHC 24.

closest comparable inchoate work.[299] And with the film claim, owing to the thin protection afforded films and the absence of any photographic copying, the court held that there was no infringement of film copyright. As such, for the appeal case the infringement claim concerned only literary and artistic copyright, and on those two subjects, the court found that there was no infringement in the work. In doing so, the court explained that:

"[a] 'Graphic work' is defined as including all the types of thing specified in s.4(2) which all have this in common, namely that they are static, non-moving. A series of drawings is a series of graphic works, not a single graphic work in itself…So I think the case on artistic works falls at the first hurdle, given the concession that there is no frame-for-frame reproduction."[300]

To limit the protection to frame-for-frame reproduction is reductive in two ways. Firstly, it seemingly sets a precedent for thin protection in assessing the visual qualities in video games, elevating the criteria for infringement to one similar in films, where only near identical copying takes place. Despite this not being the criteria elsewhere in assessing artistic works. Furthermore, the decision to dissect a videogame into is itself dubious. It has been stressed that video games are fundamentally distinct from the works traditionally protected by copyright. Unlike films, or artistic works which are intended to be 'shown', as the case itself acknowledges, it is a *game* and indeed "it is…extremely difficult to appreciate the extent of the similarities and differences between the games in issue without having an opportunity to see them in use or, better still, play them".[301] The visuals serve a different purpose in an artistic work and in a video game, moreover, the appearance of these visuals will be manifestly different. Traditionally, as artistic works they are assessed as they are presented, static. Whereas in video games, the artistic qualities and visuals are frequently mobile, and perhaps more importantly, rarely does a player in the course of ordinary play ever appreciate the artwork in a video game as an individual still frame. As such, the same problem with film reoccurs with video games, where the video game is protected qua artistic work, which accordingly imports an inappropriate analysis for assessing artistic qualities.

[299] Albeit still a weak comparison at best.
[300] *Nova v Mazooma* (n 302).
[301] ibid.

Furthermore, like films there is a disregard for the specific nature of video games as a unique medium of work, and accordingly an absence of protection for the expressions exclusive to the medium, as demonstrated with Nova's literary copyright claim.

Whilst Nova acknowledged and accepted that no code had been copied or taken – citing *Designer Guild*[302] in particular – they sought to assert that the detailed "'idea' of the cue pulsing with the power-meter"[303] could be protected under literary works as a detailed idea executed by the code. Stressing that it was neither an idea which underlie the code and thus unprotectable, nor was it a commonplace idea. The court rejected this explaining that:

"An idea consisting of a combination of ideas is still just an idea. That is as true for ideas in a computer program as for any other copyright work…what was found to have inspired some aspects of the defendants' game is just too general to amount to a substantial part of the claimants game…They are ideas which have little to do with the skill and effort expended by the programmer and do not constitute the form of expression of the literary works relied upon."[304]

There are several issues with this reasoning. Firstly, the statement that an idea consisting of a combination of ideas is still an idea seems incongruous with the judgements rendered in both *Designer Guild*[305] and *New English Teas*[306]. It is difficult to see how the combination of ideas used to execute the idea of painting flowers and stripes is manifestly different to a combination of ideas to execute a pool game. Secondly, although the judgement is likely correct in that what was taken probably was not sufficiently substantial for infringement. Since the power-meter and cue pulsing alone represent a relatively minor amount of the game, even in the context of an otherwise simple computer game.[307] The conclusion reached that the ideas had little to do with the skill of the programmer, nor constitute an appropriate form of expression is subject to criticism. Whilst in isolation such features reasonably should not be

[302] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[303] *Nova v Mazooma* (n 302).
[304] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[305] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[306] *Temple Island Collections v New English Teas* (n 102).
[307] Or at least simple relative to contemporary games.

protected, to reiterate the protection of techniques or ideas in *Designer Guild*,[308] *New English Teas*,[309] and *Ravenscroft*,[310] assuming enough of these ideas or techniques were taken, why should their architecture not be protected?

Much like film, the expressions and combination of ideas which define the medium are being overlooked and discarded. Indeed the court stresses their non-protectability by then reiterating the principles set out in *Navitaire v easyJet*[311], that the nature of skill and labour was one which copyright would not protect, and should not protect as it would otherwise permit the 'business logic' to attract protection. However as already discussed the analogy of business logic to the design logic in video games is not a helpful comparison. There are different considerations, and at least in contemporary and complex video games which shape the design of a game's program. Performance and function are invariably on some level important considerations, but they do not entirely dictate how a game is performed and played. The room for creative expression and freedom in the 'performance' of video game is almost always different to the 'performance' in a functional program. As such, whilst the conclusion in *Nova*[312] itself is likely correct, the rhetoric and reasoning it used to reach it is worrisome. Since it reaffirms the treatment of video games and their software driven components by reference to the rules on software protectability. Furthermore, the case itself reiterates the existing problems with dissecting a medium's qualities and protecting them by reference to other mediums, where expressions become shoehorned into ill-fitting rhetoric, notably the reduction of 'moving' and 'active' visuals as their 'static' stills.

A case which similarly demonstrates the challenges with protecting features unique to interactive works is *Incredible Technologies Inc v Virtual Technologies.*[313] The case concerned two golf arcade games, where alongside infringement claims for the video game visuals and the instructional display was a dispute surrounding the replication of a unique trackball system. This trackball system allowed players to virtually swing the golf club by rolling a trackball which sat in the centre of the arcade cabinets controls. In

[308] *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91).
[309] *Temple Island Collections v New English Teas* (n 102).
[310] *Ravenscroft v Herbert* (n 109).
[311] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).
[312] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[313] *Incredible Technologies, Inc. v. Virtual Technologies, Inc* (n 301).

reaching its finding of no infringement, the court discounted the trackball as a potential infringement for the purpose of copyright, stressing that as a "method of operation"[314] it fell outside the remit of copyright's protection, and that similarly, the instructions which related to this method of operation were accordingly related to functional features, as they were "essential to the use or purpose of the device"[315]. As such, the argument fell to be decided on the visual similarities, such as gold clubs, golfers and hazards, which were likewise were found to be non-infringing, because the copied expressions were deemed scene a faire. Explaining that the scene a faire doctrine refers to "incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic",[316] the court concluded that "the wind meter and club selection features were found to account for variables in real golf and so were indispensable to an accurate video representation of the game".[317] With the absence of protection for the trackball, all that remained was protection for the visual qualities, which considering the nature of the game – a realistic golf game, meant that protection was always going to be thin.

Like *Nova*,[318] the conclusions ultimately drawn are not necessarily incorrect, and as the court acknowledged, the trackball was perhaps more appropriately protected by patents. However, the case similarly demonstrates that when interactive qualities are unable to be protected, the judgement turns on traditional qualities. In this case, the visuals were considered necessary for creation of a realistic golf game, and whilst this is likely true, as has been stressed throughout, the level which the idea of the work is identified carries implications for how copyright assesses the expressions within. Indeed, whilst identifying the expressions necessary for a realistic representation of a game may not be hard, what happens when the game is unrealistic? Or is a game that has a combination of both real and fictional qualities? At least with respect to the latter – games combining both, following the rhetoric of *Capcom v. Dataeast*,[319] a case concerning two semi-real fighting games: *Fighter's History* and Str*eet Fighter II*, it seems that fictive qualities including the expressive details of magical specials attacks

[314] ibid.
[315] ibid.
[316] ibid.
[317] ibid.
[318] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[319] *Capcom USA Inc v Data East Corp* [1994] WL 1751482 (NDCal).

such as fireballs could be protected and afforded more protection than obviously real-life counterparts.[320] Implying then that fictive qualities may well indeed receive more protection. However, we then return the question of when and where do we abstract the idea to.

In *Capcom v Dataeast*[321] the idea of the game was defined as "a one-on-one fight game that allows players to select from a host of human characters, each with their own unique appearance and fighting style, to do battle using a variety of realistic and "special" or unreal moves and combination attacks"[322]. In comparing the human characters, the court concluded that the similarities were not sufficient, and that whilst for instance, two characters might be "tall, slender fighters of European origin and glamorous appearance who wear striped pants and bands around [their] forearms,"[323] a close inspection reveals they are not similar. Yet, it seems difficult to say that these qualities are indispensable for the game idea outlined for *Street Fighter* and *Fighter's History*, at least in comparison to the ideas necessary for the golf games in *Incredible Technologies.*[324] Furthermore, what makes tall slender Europeans with striped pants and bands a generic idea, but, recalling the batmobile case, [325] batlike features not? As such, to choose to rely on traditional copyright rhetoric does not seem to manifestly make the copyright assessment any easier or more consistent, and at the same time this analysis continues to ignore entire qualities which are integral to these works. All these cases thus demonstrate how poorly equipped copyright is to address interactive works, and with the absence of any formal protection alongside the rules for narrow protection from software and functional expressions, the interactive qualities which define these works remain woefully overlooked. As a result, when there are cases of significant non-literal copying, but little taking of expressions traditionally protected, copyright has had to compensate by stretching the protection for traditional expressions. Which as the next section will demonstrate has led to significant overprotection, and absurd conclusions.

[320] Although in this case the fireballs were deemed sufficiently different as they were of a different colour and their icons adequately different.
[321] *Capcom U.S.A. Inc. v. Data East Corp.* (n 323).
[322] ibid.
[323] ibid.
[324] *Incredible Technologies, Inc. v. Virtual Technologies, Inc* (n 301).
[325] *DC Comics v Towle* (n 121).

2.5 – Overprotection but worse

Copyright's problem with overprotected ideas and expressions can be described as concerning two primary issues. Firstly, that ideas are being protected notwithstanding the dichotomy. Which might be tenable if there were consistent rules or guidelines surrounding the protection of ideas, however, the application of the dichotomy has been biased or poorly applied such that the protection of ideas has been erratic. This is especially obvious when examining the rules on functionally dictated expressions, where ideas more immediately amenable to traditional categories of protection, such as ideas of a literary or artistic nature have been protected notwithstanding their functional facets. Secondly, there is the related issue that certain ideas and expressions have been privileged primarily because they have historically been identified as protectable ideas or expressions in a different medium. And are thus recognized as ideas or expressions regardless of whether they are relevant ideas or expressions for the purposes of the work and medium at hand. With respect to interactive works and video games, because there is an absence of appropriate protection, in order to secure effective protection, these privileged ideas and expressions have accordingly been stretched or given more comprehensive protection than they ordinarily would at copyright. The problem with overprotection in video games much like with underprotection rests predominantly on the issue of the interactive qualities, the gameplay or experience and the expressions which represent or underpin it. For the most part, copyright has historically declined to protect video game expressions which are either functional, or even connected to function, however, there has been one recent case which has been an anomaly to this – *Tetris v Xio*.[326]

Tetris v Xio[327] seems to support the argument that where there is increased technological freedom, the threshold for finding functional or technological determinism is correspondingly increased. The case concerned an infringing game which sought to replicate and mimic the popular puzzle game *Tetris*. The game involves falling interlocking pieces termed tetriminos, and the objective of the game is to rotate the pieces as they fall to fit the existing 'puzzle' created by the fallen pieces to eventually create full horizontal rows. Seemingly taking a departure from the rhetoric

[326] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[327] ibid.

in *Amusement World*[328] the court held that whilst "*Tetris Holding* cannot protect expression inseparable from either game rules or game function…this principle does not mean, and cannot mean, that any and all expression related to a game rule or game function is unprotectible".[329] Outlining the possibility for protection provided that the expression can be distinguished from the underlying idea, rule or game function. The court further concluded that the: "style, design, shape, and movement of the pieces are expression; they are not part of the ideas, rules, or functions of the game nor are they essential or inseparable from the ideas, rules, or functions of the game."[330] And as a result, the court found infringement, identifying the *Tetris* pieces as expressive elements which fell under the remit of copyright protection, and even identified 'abstracted' idea-like elements such as: "the dimensions of the playing field, the display of 'garbage' lines, the appearance of 'ghost' or shadow pieces, the display of the next piece to fall".[331] The court explaining that:

"None of these elements are part of the idea (or the rules or the functionality) of *Tetris*, but rather are means of expressing those ideas. I note that standing alone, these discrete elements might not amount to a finding of infringement, but here in the context of the two games having such overwhelming similarity, these copied elements do support such a finding."[332]

As such, the level of abstraction is quite unlike that in *Amusement World*[333], where *Asteroids* was effectively abstracted to being considered a genre itself, whilst *Tetris* was mostly abstracted to the level of a puzzle game. And although variations on the *Tetris* puzzle could exist and would not fall foul of infringement – such as *Dr. Mario* which was raised as such an example – this did not enable wholesale copying, to the extent that elements common to puzzle games, such as 'ghost' or 'shadow pieces' and 'preview displays', were nonetheless considered part of the substantial infringement assessment.[334]

[328] *Atari, Inc v. Amusement World, Inc* (n 273).
[329] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[330] ibid.
[331] ibid.
[332] ibid.
[333] *Atari, Inc v. Amusement World, Inc* (n 273).
[334] Castree (n 184).

Why then was *Tetris* able to protect ideas, or indeed the 'architecture' of ideas where *Nova*, *Atari* and *Capcom* could not? Why then were these features often found in puzzle games not treated as scenes a faire or necessary in the same way that the wind meter and club selection features were considered common or necessary for a realistic golf game. At least in comparison to *Virtual Technologies*, the courts distinguished the two cases on the basis that *Tetris* was a "purely fanciful game"[335] and therefore "there are no expressive elements "standard, stock, or common" to a unique puzzle game that is divorced from any real world representation."[336] Nonetheless, that does not entirely explain the courts verdict, since in *Capcom*[337] the court was willing to identify 'fireballs' and similar magical projectiles as stock elements to fighting games despite being quite clearly divorced from any real world representation. Moreover, in *Atari v Williams*[338] and in *Atari v Philips*,[339] the court was prepared to identify mazes, scoring tables, and even 'dots' as scenes a faire.[340] Since any claim that either of these games had any 'real world representation' is at best very tenuous. One explanation might be, as Casillas claims, that the treatment might have to do with technological developments. Noting that "Not once, but twice, the *Tetris Holding* court commented on the 'exponential increase' in computer processing and graphical capabilities"[341], and indeed the court in reference to the technological advancements made stated that it "cannot accept that *Xio* was unable to find any other method of expressing the *Tetris* rules"[342]. It seems then that there may at least be some basis for distinguishing cases decided several decades earlier and may warrant an approach to abstraction that is less close to function and software determinism than previous cases have applied. However, as will be shortly discussed, even since *Xio*[343] courts have been reluctant to protect functional, interactive or gameplay aspects of works. Electing to continue to prioritize traditional expressions in protecting against infringing copies.[344]

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[335] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[336] ibid.
[337] *Capcom U.S.A. Inc. v. Data East Corp.* (n 323).
[338] *Atari, Inc v Ken Williams dba Online-Systems* [1981] WL 1400.
[339] *Atari, Inc v North American Philips Consumer Electronics Corp* (1982) 672 F2d 607 (7th Cir).
[340] ibid.
[341] Brian Casillas, 'Attack Of The Clones: Copyright Protection For Video Game Developers' (2013) 33 Loy. L.A. Ent. L. Rev 137.
[342] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 210) 412.
[343] ibid.
[344] See discussion on *Spry Fox v LOLApps* [2012] No C12-147RAJ (WDWash).

An earlier case which similarly demonstrates the primacy of traditional and especially literary and artistic expressions is *Atari v North American Phillips*,[345] which concerned the maze arcade game *PAC-MAN* and the allegedly infringing 'clone' of the game – *K.C. Munchkin*. Applying the abstraction test, the court identified the 'idea' of *PAC-MAN* as "a maze-chase game in which the player scores points by guiding a central figure through various passageways of a maze and at the same time avoiding collision with certain opponents or pursuit figures which move independently about the maze".[346] The court then classified several scenes a faire for the genre of a maze-chase game, such as scoring tables and wrap around tunnels before turning to *K. C. Munchkin*, where the court similarly concluded that it fell under this umbrella of 'maze-chase game'. However, despite allowing *K. C. Munchkin* to replicate and utilize these scenes a faire, the court then proceeded to describe several instances of infringement, specifically, grounding the infringement on the basis of "the substantial appropriation of the *PAC-MAN* characters"[347]. Terming the 'central figure' of *PAC-MAN* as a 'gobbler', and the 'pursuit figures' as 'ghost monsters' the court held that *K.C Munchkin's* inclusion of stylistically similar characters and characteristics, such as the 'V-shaped mouth' did amount to a substantial similarity finding.[348] As such, abstracting 'gobblers' and 'ghost monsters' at a low level, and treating them as protectable expressions sufficiently distant from the idea of a maze-chase game.[349] In doing so, the court stressed that both gobblers and ghost monsters were fanciful creations and were not necessary for expressing the broad idea of a maze-chase game. However, as Lastowka correctly questions:

"if the *Meteors* court was right that video games involving space ships blasting space rocks constituted an unprotectable genre, then could not one also conclude that *K.C. Munchkin* had simply copied the 'idea' of a maze game where a pie-shaped 'gobbler' vied with four ghost monsters? What made a video game involving 'spaceships and space rocks' an unprotected idea, but a video game involving a pie-shaped gobbler and

[345] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[346] ibid.
[347] ibid.
[348] ibid.
[349] ibid.

four ghost monsters a particularized form of expression?"[350]

As has been stressed throughout, identifying the appropriate level of abstraction is not easy, and depending on how and where one identifies an idea, there are significant implications for the resulting assessment. However, the disparities between the conclusions in *North American Philips*[351] and *Amusement World*[352] are particularly difficult to reconcile, and perhaps even more so now in light of *Xio*.[353] One might argue that it has to do with the 'fanciful' qualities present both in *PAC-MAN* and *Tetris*, and their disconnect from 'real-world' counterparts; in contrast to *Asteroids* which is slightly more analogous to real-world 'ideas' and 'expressions'. Yet to distinguish degrees abstraction on the basis of real-world parallels seems incongruous with the broader application of the idea-expression dichotomy outside of video game copyright. Not only can ideas be technically protected by virtue of their "architecture"[354], but copyright has never as a general rule prohibited protection based on proximity of an expression to 'realism'[355] and to do so would radically transform the idea-expression dichotomy. A better explanation for the inconsistency in caselaw likely has more to do with the "character"[356] nature of *PAC-MAN* relative to a 'spaceship'.

It is suggested that owing to the expression of a 'character' being more amenable to protection under literary copyright, than for instance, a mere spaceship, the court was willing to elevate the protection in *North American Philips*[357]. Indeed as noted already underlying copyright in general appears to be a primacy of literary and in turn narratively influenced analysis, as evidenced in the discussion of themes in *Norowzian*,[358] or in the characteristics of the Batmobile case.[359] This 'narratological' bias likely explains why the court was willing and able to find infringement in the *PAC-MAN* case, and why it was willing to abstract the gobblers and ghost monsters

[350] Lastowka, 'Copyright Law and Video Games' (n 179).
[351] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[352] *Atari, Inc v. Amusement World, Inc* (n 273).
[353] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[354] *Ravenscroft v Herbert* (n 109).
[355] *Rogers v Koons* (1992) 960 F2dd 301 (2d Cir); *Designers Guild Ltd v Russel Williams (Textiles) Ltd* (n 91); *Temple Island Collections v New English Teas* (n 102).
[356] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[357] ibid.
[358] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[359] *DC Comics v Towle* (n 121).

into expressions rather than spaceships and meteors. The treatment of 'gobblers' and 'ghost monsters' as expressive characters allowed the court to provide more effective protection against non-literal copying, since it better fit within the requirements for legitimate protection – protecting narrative expressions such as 'characters' rather than 'ideas' or 'mechanics' and was much more analogous to literary analysis applied in other areas of copyright. This eschewing of games into traditional categories is not unique to mere copyright analysis, and indeed to recall *Brown v EMA*,[360] the court considered if and to what extent were books and other traditional media were similar to video games. With Justice Scalia likening books to "choose-your-own-adventure stories"[361], and in doing so also downplayed the interactive qualities that are arguably unique to video games. And whilst Justice Alita did caution against "conflating interactive video games with other media",[362] the numerous cases which have focused on assessing 'character' similarities[363] in video game cases suggests that courts are assessing original expressions in a manner much closer to traditional media, and therefore are continuing to privilege narrative similarities in non-narrative works, or at least works where the narrative may not be the sole defining feature.

However, as already stressed, the stretching of narratological analysis usually results in doctrinal inconsistencies, and similarly here, this still does not explain the different conclusions reached in *Tetris v Xio*. In contrast, it *is* consistent with existing the problems with copyright's over protection of character elements and under protection of expressions unique to unconventional or non-traditional mediums as identified in Chapter 1. Indeed, there is the further objection that despite the fact that the court acknowledged "*K. C. Munchkin* plays different"[364], it nonetheless found infringement on the basis of *visual* similarities, which arguably fails to address the specific form and qualities that define video games and interactive works – play and interaction.[365] Moreover, even if we accept the continued application of narratological analysis, how

[360] *Brown v Entertainment Merchants Association* (n 164).
[361] ibid.
[362] ibid.
[363] *Midway Mfg Co v Bandai-American, Inc* (1982) 546 F Supp 125 (DNJ); *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343); *Spry Fox v. LOLApps* (n 348).
[364] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[365] Lastowka, 'Copyright Law and Video Games' (n 179); Gonzalo Frasca, 'Simulation versus Narrative: Introduction to Ludology' in Mark JP Wolf and Bernard Perron (eds), *The Video Game Theory Reader* (2003).

should "conventional narrative notions like 'stock characters,' 'genre,' and 'plot' be understood in the context of video games?[366] As Lastowka warns "in a young medium featuring constant innovation and imitation, notions of 'genre' were quite fluid and perhaps were constructed by copyright law as much as copyright law constructed them".[367] A warning arguably echoed by the court in *Xio*,[368] with the emphasis in that case on technological advancements, and the apparent willingness to identify mechanically driven, or at least technologically influenced expressions. Expressions which historically, courts were reluctant to protect. However *Xio*[369] remains to be an anomaly, and there has since been one case which rather than choosing to extend protection for interaction, experience or play elements as was done in *Xio*[370], elected to instead stretch the literary and artistic protection in video games - *Spry Fox v LOLApps*[371].

Spry Fox v LOLApps[372] was a recent case concerning two puzzle mobile games, where players would match objects on squares in a grid to then evolve that object within the games' hierarchy. For instance, in *Triple Town* three patches of grass would become a bush, three bushes a tree and three trees a hut. In *Yeti Town*, this was executed as three saplings becoming a tree, which then became a tent and then a cabin. From a gameplay perspective, the two games were entirely identical (albeit coded differently), but visually reskinned to look different. Historically, with the exception of *Xio*[373] this would have almost certainly escaped infringement. There was no reproduction of code or visuals, and there were no real 'fanciful' characters as was the case in *North American Philips*[374]. Yet the court concluded that "a snowfield is not so different from a meadow" [375] and noted that "bears and yetis are both wild creatures" [376] and accordingly, established infringement. Considering the reluctance to protect a glamourous European fighter, spaceships and rocks, golf clubs, it seems bizarre that the

[366] Lastowka, 'Copyright Law and Video Games' (n 179).
[367] ibid.
[368] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[369] ibid.
[370] ibid.
[371] *Spry Fox v. LOLApps* (n 348).
[372] ibid.
[373] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[374] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[375] *Spry Fox v. LOLApps* (n 348).
[376] ibid.

court was willing to provide such comprehensive protection to generic concepts such as wild animals and even "equate a tent with a tree."[377] What *Spry Fox*[378] illustrates then is the primarily challenge which faces the protection for interactive works through copyright. That fundamentally their unique, distinctive and valuable quality is not protected under copyright, and as such, to provide effective protection against non-literal infringements which seek to capitalize on this, the existing paradigms of protection must be stretched, and with absurd, incoherent and contradictory results.

2.6 – Conclusion

As such, video games and interactive works introduce several issues which distinguish them from traditional works, and which make them difficult to accommodate within copyright. The absence of a specific category which recognizes them as a unique and distinct medium leaves them to be protected by reference to existing and often traditional mediums, irrespective of whether such an approach is suitable. Furthermore, because they are inchoate and dynamic, copyright must dissect them into static or 'physical' components for analysis, or otherwise preclude protection for their 'performance' altogether, both of which overlook that games are fundamentally designed to be 'played' or 'performed' rather than 'seen' or 'shown'. Moreover, their inherent closeness with software, and frequent dependency on software for implementation further complicates the difficulties in prescribing appropriate rules or frameworks for identifying expressions, especially since the rule on function itself is poorly designed, and since courts are reluctant to treat software creativity as different for interactive works or games.

Relatedly, there is the ever-evolving technological nature of software and video games, which further complicates analysis, since any exercise on dissecting function and form is arguably contingent on the technology underlying the work in question, and the availability of other technological implementation during that time period. These difficulties are then compounded by the overarching trend in copyright to apply infringement analysis shaped by rhetoric derived from narrative and literary works,

[377] Lastowka, 'Copyright Law and Video Games' (n 179).
[378] *Spry Fox v. LOLApps* (n 348).

leading to contradictory cases, and the privileging of expressions – such as characters – which may not adequately reflect the creative expressions unique to video games and interactive works. To the extent that whether the games play very differently are not always important considerations for infringement, and conversely, games which play identically but are visually distinct are often considered non-infringing. Leaving little effective protection against wholesale copying of games which are identical outside of artwork, music and code, or otherwise, resulting in bizarre judgements such as that in *Spry Fox*[379].

Furthermore, as an ancillary to the stretching of narrative protection, there is the additional problem of the 'interactive experience' and the extent to which that is or ought to be protected. As it is debatably the actual characteristic which defines interactive works like video games.[380] It seems that contemporary cases such as *Xio*[381] and *Spry Fox*[382] are moving closer to protecting that experience, but at the cost of the legitimacy of that protection. Where either in the case of *Xio*[383] courts must acknowledged that their initial rules on software, function and play might need to be reconsidered in the context of interactive works, or in the case of *Spry Fox*[384], continue to stretch literary-style protection to cover interactive creations leading to increasingly incoherent and theoretically dissonant judgements. Having established the difficulties in appropriately circumscribing interactive creations and demonstrating the complications which emerge in trying to protect them, the following chapter analyses several explanations for why copyright is incapable of accommodating interactive creations in the first place. Focusing on critiques of copyright principles and assessing the shortcomings which make copyright's framework inadequate for interactive creations.

[379] ibid.
[380] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32); Frasca, 'Simulation versus Narrative: Introduction to Ludology' (n 369); Lastowka, 'Copyright Law and Video Games' (n 179).
[381] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[382] *Spry Fox v. LOLApps* (n 348).
[383] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).
[384] *Spry Fox v. LOLApps* (n 348).

Chapter 3 –Why copyright's principles and concepts are flawed for interactive creations

3.1 – Introduction

Copyright's over-under protection problem can be traced to copyright's approach to reification and the difficulties it has encountered in applying its principles to make creative artifacts amenable to protection. Since copyright's inability to draw the boundaries of protection can be understood as a by-product of underlying shortcomings with copyright's conceptual framework. This chapter draws upon the existing academic discourse to demonstrate how the limitations and flaws of certain principles can help show why interactive creations are over-under protected, and why they cannot be appropriately accommodated by copyright. And although there is little to no scholarship that specifically addresses the application of principles to interactive creations, there are nonetheless helpful general observations which partially outline why copyright is unable to adequately assess interactive creations.

The principles which present the most significant limitations are dematerialization, authorship, the idea expression and the work concept. The work concept is especially relevant for understanding the challenges facing interactive creations for two reasons. Firstly, because the problems with the principles are cumulative, and culminate in the unhelpful work concept. Secondly, because the work concept reiterates the biggest and most fundamental challenge for interactive creations – the absence of a corresponding category. As such, the following sections will discuss these principles and consider how their limitations help demonstrate the problems with protection, whilst also highlighting where the criticisms fall short for understanding the unique problems for interactive creations. Discussing in 3.2 the issues with dematerialization, in 3.3 the limitations of authorship, in 3.4 the flaws of the idea-expression dichotomy before turning to the problems with the work concept in 3.5. However, before addressing and discussing these various critiques, it is worthwhile to briefly touch on an issue which broadly explains why copyright's approach to protection has been so inconsistent, and acts as a limitation for all of copyright's principles – its history.

3.1.2 – A brief aside about copyright's history

Chapter 1 provided a brief account of the history of copyright, noting its emergence as a regime of protection that evolved from the regulation of printing, to the protection of print, to the sentiment behind printed text and eventually to original works. This progression of copyright was slow, incremental and was not linear.[385] Much of copyright's development can be described as reactive and subject specific. With copyright's objects of protection, nature of protection and purpose of protection having undergone significant changes throughout copyright's existence. Crucially, copyright's objects, nature and purpose did not evolve in tandem. And this is reflected in the myriad narratives of copyright that exist both in copyright jurisprudence and in the scholarly discussions of copyright's history.[386] Instead, what copyright's history does demonstrate is that "the debate over copyright has always encompassed positions across the full range of the spectrum: from advocating strong, perpetual copyright to recommending its abolition,"[387] and that "that copyright legislation has always represented a compromise between these two extreme poles of protection". [388]

As such, that there are inconsistencies in copyright's protection throughout its existence is unquestionably on some level a product of its history, and this equally applies to its concepts and principles. For instance, the fact that the "'work' has been called on to perform a number of different roles in copyright law",[389] is unsurprising, because concepts and principles have had to adjust to accommodate the then prevailing copyright objective, and respond to contemporary cultural or political pressures. But the mere fact that the evolution of copyright has been piecemeal and particularistic does not alone provide a comprehensive explanation for why copyright's reification has been inconsistent and incoherent. It does not explain the challenges facing the reification of works, nor does it explain why there may be theoretical dissonance, and the varying degrees of compatibility between a copyright principle and a certain subject matter.

[385] Bracha (n 48).
[386] Barbara Lauriat, 'Copyright History in the Advocate's Arsenal' in Isabella Alexander and H Tomás Gómez-Arostegu (eds), *Research handbook on the history of copyright law* (Edward Elgar Publishing 2016); Martin Kretschmer, Lionel Bently and Ronan Deazley, 'The History of Copyright History (Revisited)' (2013) 5 W.I.P.O.J. 35.
[387] Lauriat (n 390).
[388] ibid.
[389] Sherman (n 67).

Instead, copyright's dissonant history provides a foundation and an explanation for the existence of disparity within principles, subject matter and between principles and subject matter. It is important and helpful to acknowledge that the nature and history of copyright is patchwork, especially as a basis for the existence of dissonance. But equally, it must be recognized that the analysis of copyright's history is limited in precisely exploring and explaining the practical challenges in contemporary copyright reification, and in explaining the specific shortcomings of its principles and subject matter. For instance, it might help explain inconsistency in the application of the work concept, especially by highlighting differences in context and pressures which shaped and informed its definition. But is less useful for assessing why the work concept might be ill defined or poorly applied. As such, against the backdrop of copyright's fragmented history and evolution, the problems with copyright's nature will now be examined in turn, starting with the dematerialization of copyright.

3.2 – Dematerialization

Copyright's difficulties in consistently and clearly defining the boundaries of protection begin with dematerialization. Specifically, they stem from the recognition that copyright's protection extends beyond the material object. Which led to the inclusion of immaterial qualities within its ambit, and accordingly introduced the challenge of applying boundaries to an abstract object which has no observable or measurable margins. Since whether copyright is identifying the 'sentiment' behind the text, an author's expression, or the incorporeal work, in each instance, the fence and the territory within are essentially "imaginary"[390].

3.2.1 – The overarching difficulties with dematerialization

There are two primary difficulties with attempting to apply boundaries to an intangible and imaginary subject. The first and most obvious is that intangible qualities are incapable of tangible perception. To an extent, this can be circumvented by perceiving or defining the intangibles indirectly through the material object in which the qualities

[390] Alexandra George, 'The Metaphysics of Intellectual Property' (2015) 7 W.I.P.O.J 16.

reside. However, there is still significant scope for uncertainty. This is because if the intangibles are identified by way of abstraction from the tangible, there is likely some degree of subjectivity involved in their construction and perception. Furthermore, because the intangible subject exists somewhat independently of the material carrier, physical measurements may not correlate with the metaphysical, making quantifying the scope of protection an imprecise and approximate task. As such, accurately identifying the 'imagined' object is difficult if not impossible to do exactly and with objective certainty.

This is not necessarily true for all immaterial objects, with an obvious example being real property such as land where the corresponding legal boundaries reflect the physical contours of land ownership. Nonetheless, for intellectual property and especially copyright, the nexus between the material object and the immaterial subject is neither obvious nor precise. To some extent, this is because not every material fixation necessarily or directly corresponds with its immaterial counterpart.[391] However, the primary reason why the task of circumscribing the intangible object is so approximate is because the subject of copyright "encompasses sufficiently similar objects,"[392] and therefore "it is not possible to set out the precise scope of an intellectual property object except when assessing it relative to other objects".[393] The fact that the subject of protection must include similar iterations means that to some extent, it must be pliable. Eroding if not invalidating any attempt at creating a discrete model of protection.

Moreover, the scope of protection is also contingent on the legal concepts and conditions which both shape and give effect to the its ambit. Not only is the copyright subject different from its corresponding material object because the contours of the physical object can be objectively fixed and traced, but it is also distinguished on the basis that it is arguably entirely a legal fiction. Intellectual property is a product of legal

[391] Obvious examples of this can be seen in music copyright, with arguably a single piece of music having multiple material reifiers, such as music as recorded in a score, compared to that same music as performed and preserved in a sound recording. The argument of course can be made that there is a corresponding incorporeal work to each material fixation, but nonetheless this demonstrates that there isn't always a strict correlation between physical objects and their abstract counterparts. See further Pila, *The Subject Matter of Intellectual Property* (n 14); George (n 14).
[392] George (n 394); George (n 14); Pila, *The Subject Matter of Intellectual Property* (n 14).
[393] George (n 394).

recognition and given further identity through judicial reasoning.[394] And whilst the intellectual property may be "reified by the physical thing, e.g. the chair…this is only a convenient "social crutch" for the actors in the physical world and not conceptually necessary for the law".[395] This is especially true for copyright and intellectual property rights which are "conventional, not natural, rights…they are invented, not reflected by the law."[396] Whilst a material object can be identified by material characteristics, a legal subject must be identified by "conceptual legal tools".[397] Accordingly, the efficacy and precision of copyright's subject becomes contingent on the application of its principles and tools which if unsuccessful, can erode coherence and clarity.
This raises a related question – if copyright is manifestly a product of legal concepts, and if the intangible boundaries of the copyright object are ultimately normative and conceptual, why is the copyright object still frequently framed through a physical material reifier? An approach which is arguably incompatible or at best difficult to reconcile with a purely abstract object.

One explanation for copyright's hybrid approach is its history. The history of copyright's models of protection can loosely be summarised as follows: protecting the object – rights in a book, protecting the production of objects – rights to print the book, protecting the physical object and its immaterial qualities – rights in the text, and protecting the object and its 'essence' – rights over the 'work'. And whilst there is debate on whether the history of copyright's protection has followed a linear shift towards an increasingly immaterial model, and the extent of "dematerialization"[398], most academics agree that the system of protection is one that has developed from a strictly physical model of protection to a hybrid one. As such, it could be argued that the continued relevance of physical objects is a product of copyright's piecemeal evolution. However, the more relevant reason is that copyright's approach is deliberately contradictory and oxymoronic, and must confer protection for both the

[394] Drahos (n 14); George (n 14).
[395] Andreas Rahmatian, 'Intellectual Property and the Concept of Dematerialised Property' in Susan Bright (ed), *Modern studies in property law*, vol 6 (Hart Publishing 2011); Drahos (n 14); George (n 14).
[396] Rahmatian (n 399); see further Drahos (n 14); George (n 14).
[397] George (n 394).
[398] ibid; CF with: Barron (n 11); Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law (Part 1 and 2)' (n 30); Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 48).

tangible and intangible in order to achieve its objectives,[399] which leads to the second problem with dematerialized protection – reconciling physical boundaries with the abstract.

It is argued that by design and necessity, copyright's immaterial subject needs to be "capable of changing form while, at the same time remaining identifiable."[400] This is because in order to effectively transform copyright's subject matter into protectable cultural commodities,[401] and by extension to protect against non-literal infringement, and to reflect the extension of protection to include sufficiently similar iterations, copyright must conceive of its protected object as being dynamic and flexible. Accordingly, an unavoidable by-product of this flexible approach is the inherent and designed ambiguity in identifying the object and scope of copyright's protection. Of course, flexibility alone does not axiomatically lead to inconsistent and incoherent decisions, but it can erode certainty. And concurrently applying a malleable and incorporeal model of protection with a physical framework of protection has proven difficult, where commercial commodification has come at the cost of conceptual coherence.

One challenge in the joint application of the tangible-intangible framework is that their characteristics are at best distinct and at worst contradictory. Indeed, how can a model of identification which is abstract, amorphous, and defined only by legal concepts, be reconciled with a model of identification that is static, quantified and materially identified? For example, considering that the immaterial object is a product of legal principles and concepts, why does copyright continue "to attribute regulatory significance to the boundaries of the material form of copyright works".[402] What purpose does materiality and fixation serve in the context of non-literal infringement, when ultimately the assessment rests on the identification of an amorphous and legally

[399] Drahos (n 14); George (n 14); Pila, *The Subject Matter of Intellectual Property* (n 14).
[400] Griffiths (n 375); See also Drahos (n 371) commenting on the importance of the immaterial subject as a core structure for making decisions "about whether disparate physical objects are the same or similar and see George (n 368) discussing the importance of retaining "objectively discernible boundaries" for definitional convenience.
[401] Drahos (n 14); Pila, *The Subject Matter of Intellectual Property* (n 14).
[402] Griffiths (n 402).

constructed work which is abstracted away from the materially fixed object?[403] Is it as George suggests, because they can serve as "convenient definitional boundaries"[404] and as a springboard for examining the abstract? Even if the material qualities arguably serve a purpose in the abstraction exercise, at least as a starting point, ultimately the abstraction exercise itself is a product of legal principles. As such the application of the models of identification are essentially mutually exclusive. As a matter of practice and principle, the two models are methodologically distinct.

Arguably worse still is the retention of list approaches such as in British and American systems where subsistence is tied to the material forms and categories which embody and identify the specific physical compositions which attract protection. A requirement that likewise seems incongruous with the eventual copyright assessment which sometimes if not frequently assesses and constructs the protected subject distinct from its material carrier. Indeed, if copyright seeks to protect the reproduction of "the work or any substantial part thereof in any material form whatsoever"[405] then why should copyright single out particular species of objects that are afforded protection, and equally why rely on their "forms of material artefact ('sculptures', 'works of artistic craftsmanship', 'collages' and 'engravings', for example) in defining the scope of protected forms of creativity".[406] For both fixation, and the importance attributed to material forms, the boundaries are drawn in relation to tangible and objectively quantifiable attributes. In contrast, the intangible and legal object is a product of concepts and principles. Reiterating that the methodology in constructing their respective contours are both conceptually and practically different, and as such there is no straightforward simultaneous application of the two models. They are in the least, distinct, and arguably incompatible. To say that a work is abstract and ambiguous whilst also being fixed and defined by the material qualities of the object in which it is embedded is an oxymoron.

[403] It is likewise questionable how relevant fixation moving forward in a digital environments and contexts, especially as there is no international requirement fixation required by the WIPO copyright treaties.
[404] George (n 14).
[405] Copyright Act 1911; s(17)(2) Copyright, Designs and Patents Act 1988.
[406] Griffiths (n 402).

Furthermore, in the context of protected objects and distinct categories, the accompanying assessment of the material qualities and physical reifier will by design and definition be subject specific. And this is particularly evident in certain categories such as artistic works and films,[407] where physical form and objects which attract protection are more thoroughly defined, or more exhaustively defined than for example, literary works.[408] In contrast, a work's intangible qualities are not subject specific, yet the way copyright's work and immaterial subject is conceptualised – through legal principles – has in many ways become homogenised As latter sections will discuss – especially with respect to the ramifications of this – authorship and the idea-expression dichotomy have largely been treated as universal, irrespective of whether they are conceptually suitable for the work and subject being examined. To a significant extent, this is largely and likely a by-product of copyright's move towards the universal work concept. However, many jurisdictions have either retained subject matter lists, or subject specific qualities as formalities for protection, and in the least continue to attribute significant subject specific importance to physical qualities notwithstanding the move towards a now generalized (or more generalised) model for intangibles. As such, it is difficult to argue that a generic model for intangibles is being maintained, when physical prerequisites can define eligibility for protection, and can otherwise dictate how the intangible is to be constructed. Especially if it is assumed that part of the process for constructing the generic intangible – the abstraction exercise – is contingent on characteristics which are unique and dependent on a subject's formal requirements. It seems reasonable to conclude then that whilst principles for constructing the immaterial are purportedly generic, they are to some degree shaped by rhetoric which at times may be subject specific. Accordingly, there may well be instances where subject specific analysis gets inappropriately imported.[409]

Relatedly, with this disparity in specificity between physical and immaterial qualities, the extent to which the tangible qualities matter and in turn inform the construction of

[407] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133); *Lucasfilm Ltd and others v Ainsworth and another* (n 147).
[408] For artistic works, see the discussion on s.4 below and the discussion at later in the chapter at 3.5.2. For film, see Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 18) and the discussion of UK film in 4.5.
[409] For the issues with inappropriate subject specific analysis see 4.5 and 5. See also Pila, *The Subject Matter of Intellectual Property* (n 368) stressing the importance of correct categorisation for perceiving works.

the immaterial becomes even more critical a question. Especially since balancing and applying the material and immaterial models, is an exercise equally laden with ambiguity and conceptual difficulty. Determining the extent to which materiality matters, identifying how and when material form should apply in deciding infringement, and even moving from the physical reifer to the metaphysical work are all tasks rife with uncertainty. Whilst copyright's model of protection is a hybrid material-immaterial framework, the degree to which materiality and physical reifiers matter remains a question of both legal and academic uncertainty.[410] The academic commentary on materiality will be discussed further in 3.5 and again in chapter 4, especially since many of the discussions on material form are closely bound together with specific subject matter. For instance, s.4 of the CDPA's explicit identification of artistic works by virtue of their physical artefacts compared to the seemingly open-ended classification for literary works may lead to nuanced differences in the analysis on the importance of material form.[411] However, there are still universal difficulties in assessing the relevance of the physical qualities and material object, especially in the context of infringement.

One example that is frequently cited for the enduring relevance of materiality is in the question of substantiality and sub-dividing a work.[412] Griffiths in particular has suggested that in British copyright, there has been an ambiguity in assessing how a "substantial part" had been copied, noting that the treatment of substantiality has at times seemed to accord more closely with a dematerialised model – where the amount taken rests more on the intangibles such as the 'labour and skill' or 'originality' rather than the "recorded work as a whole".[413] Yet in other cases, especially those which concern the subdivision, or arguably artificial subdivision of a larger 'work' into

[410] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78); Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45); Griffiths (n 402); Sherman (n 67); Pila, 'Copyright and Its Categories of Original Works' (n 71); Pila, 'An Intentional View of the Copyright Work' (n 85); Stina Teilmann-Lock, *British and French Copyright: A Historical Study of Aesthetic Implications* (1st ed, Djof Publishing 2009).
[411] Specifically, with the wording of s.4 of the CDPA which unlike other categories specifically identifies the kinds of protected objects, and alongside the absence of their inclusion in s.3(2), has led commentators such as Pila to suggest that this could be interpreted to mean that they do not exist independent to "the fact and form of their material fixation" see further Pila, *The Subject Matter of Intellectual Property* (n 368) and the continued discussion at 3.5.2.
[412] Griffiths (n 402); Sherman (n 67); Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).
[413] Griffiths (n 402).

discrete and distinct individual works, British copyright has tended to reiterate the importance of material form. Electing to construe the 'importance to the copyright work' and 'substantiality' as being framed within the context of the work as a 'whole' and the boundaries of its form.[414] Leading Griffiths to conclude that whilst "copyright's core protected property is envisaged as a shifting, yet malleable, essence…in some instances, it is presented as though it were closely related to the material form within which it was first recorded." Reconciling these infringement cases concerning subdivisions where materiality was emphasized against the cases which rely on a predominantly dematerialised model of the work to establish infringement is difficult at best. And besides being a means to counteract artificially partitioning a work to inflate the importance of a copied part, there seems to be little guidance on when a work's material form should be emphasized to curtail the scope of protection.

A final issue is that by acting as if there is a perceptible basis for curtailing the scope of protection, it introduces an expectation if not a precedent that the physical qualities define the scope of the immaterial when this is not always the case. Especially since the immaterial subject is predominantly a product of conceptual tools. And equally it implies that there is an objectively and quantifiable method to move from the tangible to the intangible, which as latter sections will demonstrate, is rarely the case, again in part owing to the inherent conceptual rather than empirical nature of the abstraction exercise. Moreover, for works which arguably resides across multiple material carriers, it is unclear if there is a single immaterial work, or multiple abstractions which each reside in the respective physical vessels. This is especially problematic for jurisdictions which have elected to identify certain protected forms as eligible for copyright, and in doing so have been inconsistent. Where some subject matter attribute greater importance to material form, and are accompanied with narrowly defined restrictions, such as in the case of artistic works and films in the UK. The ramifications of which can be observed in previously mentioned cases such as *Norowzian*[415] and *Lucasfilm*.[416] Where in both cases, there is little to no recognition of the film as an immaterial subject, and instead protection for the immaterial must be shoehorned into a different

[414] ibid; Sherman (n 67); *IPC Media Ltd v Highbury-Leisure Publishing Ltd* [2004] EWHC 2985 (Ch).
[415] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[416] *Lucasfilm Ltd and others v Ainsworth and another* (n 147).

category – as was the case with dramatic works protecting films in Norowzian,[417] or be denied protection because of subject specific requirements on form. Relatedly, it seems strange that a work cannot ordinarily be artificially subdivided to increase the importance of a copied part, but a multimedia creation can be subdivided into its different material components and in turn different abstract works, when in reality the multimedia is experienced in its entirety rather than its individual parts

As such, copyright's protection of intangibles and its process of dematerialization has arguably contributed to inconsistent and contradictory caselaw in two ways. To some extent, the judicial uncertainty can be said to be a product of intangibility, which by nature is ambiguous. Whilst the oxymoronic protection of the physical and abstract, alongside the inherent difficulties in applying the hybrid model demonstrate why copyright's approach has led to contradictory and incoherent outcomes.

3.2.2 – The difficulties with dematerialization applied to interactive creations

In the context of assessing interactive creations, the aforementioned challenges caused by dematerialization, and the critiques of its application are of varying relevance. To some extent, the broad criticism that there is ambiguity as a result of the fundamentally indistinct nature of an intangible entity or qualities, whilst may be true, does not sufficiently explain why this ambiguity is arguably worsened in the context of interactive creations. Likewise, the arguments which cite a fundamental incompatibility between physical and intangible protection do not specifically explain why there are certain subject matter that have judgements which are especially incoherent and contradictory, let alone why it is particularly bad for interactive creations.

What is relevant is the disparity between copyright's intangible model – which is a product of universal and homogenized legal concepts and its tangible model which is subject specific. This is because questions concerning the manner and extent which materiality is relevant, are invariably more complicated when works like interactive creations have multiple physical 'vessels' and therefore multiple formal characteristics.

[417] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

For example, understanding how and whether the intangible is partitioned in accordance with those respective 'vessels' or viewed in toto is far from obvious. As Drahos recognises, "[a]bstract objects have the potential to reside in one physical object or many. Their extension to the physical world depends on their definition". Which is especially relevant for interactive creations since more so than traditional works, they have different physical vessels which partially reify the abstract object. And as a result, depending on the emphasis placed on that object or physical characteristics, can shape how they are defined or made sense of by copyright. Accordingly, to some extent this provides a possible explanation for why the frame by frame analysis in Nova[418] took place, and can arguably be used as a basis for understanding why the immaterial subject - the video game work as a composite entity, has been underprotected or possibly protected incorrectly. By understanding copyright's difficulties as a product of trying to define an abstract subject through a series of disparate and distinct physical objects. However, this still does not provide a nuanced answer for why interactive creations are underprotected, or more underprotected than other creative forms. Nor does it provide a satisfactory answer for the inconsistencies across *Williams*,[419] *Amusement World*,[420] *North American Phillips*[421] and *Xio*.[422] Since this shortcoming is equally true for other multimedia works. However, this is nonetheless a useful cornerstone in constructing an explanation for the challenges facing interactive creations. Since unlike the other more generic problems highlighted with dematerialization, latter critiques can and will specifically build on this fundamental problem – that concurrently protecting immaterial characteristics alongside or through tangible properties is laden with difficulties.

3.3 – Authorship

Authorship was initially introduced to copyright with respect to literary authors and works, yet authorship has endured and persists in modern copyright's lexicon, despite the expansion of its subject matter beyond literary and written works. And even with

[418] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[419] *Atari, Inc. v. Ken Williams dba Online-Systems* (n 342).
[420] *Atari, Inc v. Amusement World, Inc* (n 273).
[421] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[422] *Tetris Holding, LLC v. Xio Interactive, Inc.,* (n 257).

the proliferation of the mass production and consumption of commercial multimedia enterprises, authorship remains "central to the operation of copyright as a regulatory tool".[423] As such, the difficulties for authorship concepts in their application to copyright's expanded subject matter and mass produced commercial works will be the main focus of this section. This is because whilst the literature on authorship is extensive, it is of varying relevance for both understanding why copyright struggles to coherently draw its remit of protection, and for discussing the precise problems facing interactive creations outlined in Chapter 2.

Accordingly, not every authorship discussion will be considered, and even if a critique can provide some explanation for the incoherent protection of interactive creations, where it is too general or does not help address the unique difficulties facing interactive creations, it will not be examined. For instance, whilst arguments which broadly contend that authorship as a principle is conceptually unsound might explain why the principle has been incoherent in copyright law,[424] such a conclusion is of limited use for discussing the nuances of the problems facing the protection of interactive creations. Similarly, discussions which for example focus on the contradictory objectives and purpose of copyright, or critiques which consider the incompatibility of authorship with copyright's policy concerns will be set aside for the purposes of this current discussion. [425] And discussions which seek to highlight the flaws of authorship as a conceptual tool will also be not be discussed.[426] Because the focus and conclusions

[423] Lionel Bently and Laura Biron, 'Discontinuities between Legal Conceptions of Authorship and Social Practices' in Mireille van Eechoud (ed), *The Work of Authorship* (Amsterdam University Press 2014).
[424] For the various discussions on the flaws and limitations of authorship as a concept and principle see Rose (n 2); Laura Biron, 'Creative Work and Communicative Norms' in Mireille van Eechoud (ed), *The Work of Authorship* (Amsterdam University Press 2014); Edwin C Hettinger, 'Justifying Intellectual Property' (1989) 18 Philosophy and Public Affairs 31; Jessica Litman, 'Copyright as Myth Essay' (1991) 53 University of Pittsburgh Law Review 235; Tom Palmer, 'Are Patents and Copyrights Morally Justified' (1990) 13 Harvard Journal of Law & Public Policy 817; Lionel Bently, 'R. v. the Author: From Death Penalty to Community Service - 20th Annual Horace S. Manges Lecture, Tuesday, April 10, 2007' (2008) 32 Columbia Journal of Law and the Arts 1; Foucault Michel, 'What Is an Author' in Josué Harari, *Textual Strategies: Perspectives in Post-Structuralist Criticism* (Cornell University Press 1979); Roland Barthes, 'The Death of the Author' in Stephen Heath (tr), *Image, music, text: essays* (13. [Dr.], Fontana 1977).
[425] For discussions on policy and objectives of copyright conflicting with authorship ideology and principles see for instance Peter Jaszi, 'Toward a Theory of Copyright: The Metamorphoses of "Authorship"' [1991] Duke L.J 455 see also James Boyle, *Shamans, Software, and Spleens: Law and the Construction of the Information Society* (Harvard University Press 1996), and Oren Bracha, 'The Ideology of Authorship Revisited: Authors, Markets, and Liberal Values in Early American Copyright' (2008) 118 Yale Law Journal 186.
[426] See for instance, Bently (n 416) observing how authorship ideology as a conceptual tool for delineating boundaries is both over-inclusive and under-inclusive. For discussions on how authorship

of such arguments are ultimately too general to explain why interactive creations specifically face greater difficulties or present unique challenges for copyright.

Likewise, whilst there is debate surrounding the extent which romantism had or continues to exert an influence on copyright, for the purposes of this discussion, it will be presumed that copyright authorship is at least to some degree, a reflection of romantic authorship. Since copyright authorship is at the minimum, concerned with authors as privileged individuals, who are solely responsible for the work, who imbue works with their personality or personal touch, and whom copyright singles out for protection. Therefore, reflecting some key characteristics of romantic authorship. And as will be demonstrated, copyright's persistent emphasis on individuality, personality and responsibility for works present difficulties for certain types of subject matter including interactive creations.

Crucially then for the present discussion, the most useful criticisms are those which discuss the suitability of authorship as a conceptual tool for its expanded subject matter. For instance, the relevance of authorship as a concept in contemporary copyright is questionable. Especially since the context in which authorship conceptions were introduced and developed is pronouncedly different to the context in which copyright currently operates, with the kinds of subject matter which copyright now protects being far broader. Moreover, copyright operates as if there is a consensus on what authorship is. As such, if authorship as understood by copyright is only applicable or helpful for certain kinds of subject matter, it could well explain the disparity in protection, as well as why some subject matter must be protected indirectly and inappropriately. Likewise, if the social practices of authorship understood in copyright fail to reflect the social realities of authorship practices, especially contemporary practices which may be unique to new mediums such as interactive creations, the availability of protection for expressions which fall under these practices may be limited depending the authorship practices. Or otherwise shoehorned and indirectly protected through copyrights available models of authorship and protection, potentially leading to awkward if not incoherent rationalizations.

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understood as transformative rather than creative undermines the efficacy of authorship as a tool that can draw clear and distinct boundaries see Litman (n 416); Rose (n 2).

3.3.1 – The overarching difficulties with authorship

It was noted earlier that the construction of an intangible ultimately rested on the principles and concepts which define it. For intangible literary property, and for the questions concerning identification and justification for protection over literary property, authorship emerged as a central principle, particularly during the literary property debates of the 18th century.[427] However, modern copyright has evolved significantly since and now encompasses much more diverse subject matter. Crucially, authorship was introduced in the context of literary authors for literary property, as such, its suitability and continued application in the context of non-literary property is questionable. And the interpretation of authors as privileged individuals or creative geniuses is difficult to maintain with copyright's expanded subject matter that includes commercially driven works, or depersonalised works.

For instance, Ginsburg, contends that works without an authorial presence tend to find it more difficult to obtain protection, and that as a result, "modern copyright encounters far more difficulty accommodating works at once high in commercial value but low in personal authorship."[428] For Ginsburg, the problem of copyright's disparate protection can be traced to the privileging of original works of authorship as deserving of protection. Lamenting how the personality connotations inherent in authorship create limitations for the kinds of works which can be encompassed by copyright's model of protection. She argues that because "'original authorship' describes only those works manifesting a subjective authorial presence",[429] works which otherwise lack the requisite individuality or personality centric creativity have little recourse for protection. As such, works which cannot fit this model, but nonetheless represent valuable works which copyright seeks to protect, must be contrived an authorial presence to be accommodated by copyright.

[427] Rose (n 41); Bracha (n 429); Bracha (n 48); Woodmansee (n 46).
[428] Jane C Ginsburg, 'Creation and Commercial Value: Copyright Protection of Works of Information' (1990) 90 Columbia Law Review 1865.
[429] ibid.

Jaszi has similarly suggested that the view of authorship as privileged individuals or geniuses makes it harder to accommodate works where creative endeavours are depersonalised, or where the creations and authors fit less comfortably within the more genius-driven and privileged criteria of authorial entitlement. Which he argues has forced copyright to sometimes "strategically supress" [430] the more romantic undertones of authorship, or to frame certain contributions through a more romantic lens in order to facilitate the protection of works which otherwise would fall outside copyright's authorial model. He contends that with *Burrow-Giles Lithographic Co. v. Sarony*[431], the court elected to emphasize and extend the concept of romantic authorship, by drawing parallels between a photographer and "notions of individualistic artistic genius".[432] Specifically noting that the court described its composition as being "entirely from his own original mental conception to which he gave visible form by posing [the subject] in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph" [433] As such, the court constructed the photographer in ways which reflects the traditional criteria of romantic authorship. It treats the act of creation as a solitary activity, whilst ascribing it creative connotations, which originate and stem from the photographers own 'genius'. Rose similarly takes issue with the elevation of the photographer to author-genius status in *Burrow-Giles*[434], criticizing the diminishing of the camera as "significant factor in the production of the photograph".[435] In particular, the erasure of the camera is especially dubious considering importance of the camera for the final creative product. This is because in comparison to for instance a printing press or word processor for a literary work, the camera is not merely the apparatus that facilitates the work, but creatively impacts it as well.[436]

As such, copyright's emphasis on genius and individuals precludes models of creation where authorship is not strictly attributable to a sole individual. Leaving poor protection for creations which frequently involve multiple parties cooperating and co-creating such as films, or creations which have unconventional creation practices – for

[430] Jaszi (n 429).
[431] *Burrow-Giles Lithographic Co v Sarony* (1884) 111 US 53.
[432] Jaszi (n 429).
[433] *Burrow-Giles Lithographic Co. v. Sarony* (n 435) 54–55.
[434] *Burrow-Giles Lithographic Co. v. Sarony* (n 435).
[435] Rose (n 41).
[436] For instance see Jean-Louis Baudry and Alan Williams, 'Ideological Effects of the Basic Cinematographic Apparatus' (1974) 28 Film Quarterly 39.

example appropriation art or remix, or for creations where a personal authorial presence is displaced – such as in machine assisted works like film or photography.

A related problem is that although copyright treats authorship as uniform and universal, there are other authorship models besides the model outlined by copyright, which may be subject specific, or more appropriate for certain subject matter. Livingston in particular raises the question of whether authorship, at least traditionally constructed, is suitable for assessing cinematic works. Observing that: "current scholarly opinion tends to favour the idea that a traditional conception of authorship is not applicable to the cinema…because authorship in film is fundamentally different from literary and other forms of authorship."[437] In support of this, Livingston touches upon several explanations. For instance, they comment on the inherent differences in the social practices of creating films as a product of the industry versus a home movie, as well as considering the conceptual suitability of identifying an author figure as being 'responsible' for the creation of a film. Arguing that in the case of most industrial scale films or films as enterprises, it is neither intuitive nor obvious how more traditional authorship conceptions such as individuality apply to industrial films where "many different people have made a number of significantly different contributions".[438] They also point out that contrary to the presumption in copyright:

"it is important to note that the director is not always the author of an industrially produced motion picture. Only sometimes does a director's role in the productive process warrant the idea that he or she is the film's author. It may be useful to add that some industrially produced films are not accurately viewed as utterances having an author or authors because it is possible that no one person or group of persons intentionally produced the work as a whole by acting on any expressive or communicative intentions. The film may be the unintended result of disparate intentional and unintentional activities."[439]

[437] Paisley Livingston, 'Cinematic Authorship' in Richard Allen and Murray Smith (eds), *Film Theory and Philosophy* (Oxford University Press 1997).
[438] ibid.
[439] ibid; See also C Paul Sellors, 'Collective Authorship in Film' (2007) 65 Journal of Aesthetics and Art Criticism 263 commenting on the presumption that directors are solely responsible for creative choices and F Dougherty, 'Not a Spike Lee Joint? Issues in the Authorship of Motion Pictures Under U.S. Copyright Law' (2001) 49 UCLA law review. University of California, Los Angeles. School of Law for a discussion of potential authorship contributions for film.

Livingston equally notes that for smaller-scale films, or even home film projects the same absence of a unifying individual or creative visionary can equally be true if not more likely. As such this raises a crucial point that the conditions, context and nature of creation are and can often be fundamentally different for film. Which in turn suggests the same for cinematic authorship. This point was similarly discussed earlier when discussing how film communicates a work differently to literary works. Arguing that "film narration depends on the use of specific devices to control the range of story information made available to the viewer, and from what point of view".[440] Which by extension suggests that the author, or at least the individual most responsible for the reception of the film could in some instances be the editor. Accordingly, if we accept this interpretation, it invariably changes how we might understand what constitutes original expressions, and warrants asking whether the way editing techniques have been examined in infringement analysis should be revaluated. For instance under this approach, *Norowzian*[441] might have been concluded differently.

This is not a film exclusive problem, returning to Burrow-Giles, Bowrey has lamented how the court's decision "minimised recognition of the technical expertise required to produce a photograph",[442] and in doing so privileges a specific approach to authorship which may overlook the creative or authorial contributions which might take place for photography. Demonstrating that Copyright's assumption that executive control or responsibility is a fundamental characteristic of authorship is neither universally true nor always relevant, both with respect to the kind of subject matter, or even within the subject matter itself.

A further limitation of copyright's authorship model is its failure to recognize the evolution of creative practices – specifically collaborative creative practices.[443] Which by virtue of their contexts, or through the conditions and context of their collaboration

[440] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[441] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[442] Kathy Bowrey, '"The World Daguerreotyped – What a Spectacle!" Copyright Law, Photography and the Commodification Project of Empire' [2012] UNSW Law Research Paper No. 2012-18.
[443] Daniela Simone, *Copyright and Collective Authorship: Locating the Authors of Collaborative Work* (1st edn, Cambridge University Press 2019) <https://www.cambridge.org/core/product/identifier/9781108186070/type/book> accessed 1 May 2023.

present difficulties for copyright. And likewise, it overlooks that there are collaborate authorship practices which are unique and particular for specific creations and even entire categories of works. Biron and Bently expand on this, and one example they touch upon is conceptual art. They explain that some artists elect "to relocate the art object away from individual instantiations (paintings, sculpture and so on), and to re-focus attention on immaterial ideas, on thought, on language, on philosophy, rather than on physical objects."[444] With some artists seeking to challenge or displace ideas about the "role of the 'artists (and the artist's 'personal touch')".[445] For instance, they discuss the 'wall drawings' made by Sol Le Witt. These drawings were essentially the products of guidelines and instructions made by LeWitt which were to be expressed, drawn or painted onto by assistants onto a gallery wall. As such, they observed that:

"Viewed from the perspective of copyright law, a 'conceptual artist' such as LeWitt would not usually be regarded as the author of the resulting artistic work (and certainly not the sole author). In contrast, copyright law would likely regard the assistants as co-authors, when conventionally they would not be viewed as such. The perspectives are not merely 'out of sync', but outright contradictions."[446]

Demonstrating that with the limited tools available to copyright, copyright may be forced to confer authorship on the wrong individuals, or at least the wrong individuals according to the theory underlying the practices. This also raises an important question about reconciling personal touch in the context of collaborative works and the tendency in law to single out individuals as being personally responsible for a collaborative creation process. As Gompel argues, one of the primary problems with at least the European benchmark for originality is the requirement that it carries an author's 'personal stamp'.[447] He notes that there are numerous obvious problems for this, including the fact that:

[444] Bently and Biron (n 427).
[445] ibid.
[446] ibid.
[447] Stef van Gompel, 'Creativity, Autonomy and Personal Touch' in Mireille van Eechoud (ed), *The Work of Authorship* (Amsterdam University Press 2014) <http://www.jstor.org/stable/j.ctt12877zb.6> accessed 17 August 2021; *C-604/10 - Football Dataco and Others v Yahoo! UK & others*.

"This requirement applies not merely to cultural types of works, such as books, music and works of art, but also to functional and technical types of works like computer programmes and databases, for which it seems difficult to determine in which elements the 'personal touch' of authors can be found."[448]

Arguing that whilst the personal touch benchmark is likely a requirement more preoccupied with demonstrating that the work originates from an author, there are concerns about how such a criteria is meant to be applied in the case of large-scale collaborative works. For instance, Gompel points out that "a distinction should be drawn between works created under the direction or guidance of one or more leading authors and works of which it is nearly impossible to identify who of the authors were in creative control."[449] Since invariably, treating the two as synonymous is conceptually flawed and in the case of the latter, may result in the artificial elevation of individuals to the status of author. Moreover, he also notes that the contributions in a collaborative work are the product of circumstance and will vary across different situations and contexts,[450] and it may not be clear whether ascribing importance to certain contributions will readily translate to similar contributions in an entirely different context. Recalling the earlier observations about context contingent contributions, a director may not always be solely responsible for the creative choices, and with the LeWitt example, the painter or painters may not be the artist primarily responsible for the painting.

These issues with collaborative creation become especially important in the context of new digital spaces which arguably facilitate more freedom than ever for users to engage in new kinds of collaborative creativity.[451] As Woodmansee contends, "[e]lectronic communication seems to be assaulting the distinction between mine and thine that the modern authorship construct was designed to enforce".[452] Specifically, new technologies facilitate larger scale collaboration, enable unfettered freedom in co-

[448] van Gompel (n 451).
[449] ibid.
[450] ibid.
[451] ibid; Reuveni (n 215).
[452] Cooper (n 577) citing Martha Woodmansee, 'On the Author Effect: Recovering Collectivity' in Martha Woodmansee and Peter Jaszi (eds), *The Construction of authorship: textual appropriation in law and literature* (Duke University Press 1994).

creating, and as result, introduces significant uncertainty in what the conditions of creation might be. For instance, collaboration can occur with arguably infinite amounts of participants, as is the case with community projects such as Wikipedia.[453] Whilst open source projects allow for entirely new avenues for people to borrow, share and adapt works made by other authors.[454] Moreover, the manner in which people collaborate can radically vary between works. Digital communication allows there to be simultaneous and instant collaboration, and through digital collaborative practices destabilize the role of authors in works, and reconfigure the relationship of authors to works from fixed and stable, to one which is inchoate and uncertain.

The overarching issues with authorship then are its continued emphasis on privileged individuals despite the expansion of its subject matter to include increasingly depersonalised creations. The fact that it treats authorship as uniform and universal despite authorship being contingent on subject matter or context. And copyright's reluctance to recognize contemporary creation practices, especially digital practices which destabilize its outmoded and inflexible model.

3.3.2 – The difficulties with authorship applied to interactive creations

The questionable relevance of authorship and the importance copyright places on personality, individuality and responsibility, provides one explanation for why interactive creations are difficult to accommodate. This is because to make works amenable to copyright, conditions which might displace authors such as the existence of multiple creators, reliance on machines – as in the case of photography and film, are either downplayed or circumvented altogether. By for instance "assigning greater value to economic initiative and control than to creative contribution",[455] as is seemingly the case with the presumption of producers as authors and in turn owners in case of films. Likewise, the need to frame protection through authorship, and authorial language means that desirable qualities must be amenable to authorship ideology, and specifically amenable to copyright authorship ideology, or otherwise indirectly

[453] van Gompel (n 451); Simone (n 447).
[454] Reuveni (n 215).
[455] Jane Ginsburg, 'The Concept of Authorship in Comparative Copyright Law' (2003) 52 DePaul L. Rev. 1063.

protected. And as has been noted throughout, it is this kind of indirect protection which creates the most obvious problems for interactive creations. For instance, the construction of characteristics or activities as authorial, even if they are not, in order to justify protection for qualities which copyright otherwise seeks to protect may enable protection for works, but at the cost of copyright's internal coherence.

Similarly, where the only tools available to construct and consolidate that consensus are limited, or only partially appropriate, it is not difficult to see how qualities might become unduly privileged or overemphasized in order to incorporate these 'unorthodox' works. Moreover, since they are included by conforming them to the existing authorship lexicon, the tools and remedies available are only those within that same lexicon and paradigm. Meaning that those tools and remedies must become conceptually diluted or misapplied in seeking solutions for problems potentially unique to these anomalous works.

Alongside this, Livingston's arguments demonstrate how the emphasis and expectations surrounding individuality and might be worse for certain categories. Film as a category of work is a clear example of the issue that copyright authorship needs to be flexible enough to accommodate commercially driven cooperative works, and copyright's elevation of directors to authors makes sense if you consider the prerogative to protect authors in a more 'industrial' or 'enterprise' context. However as Livingston comments, it is not always appropriate to identify the director as an author of the film, simply because it is more amenable to marketplace necessities, or because it is more analogous to traditional and pre-industrial ideas of what an artist and author is. Emphasizing that not only are there challenges in identifying a normative definition of authorship for different mediums, but that even for specific mediums it is not always clear which authorship definitions or presumptions are appropriate. The presumption that there is a sole guiding author is not unconditionally true but is instead contingent on context.

This is especially true for multimedium creations where there are different and sometimes distinct instances of creation, several authors, and even different categories

of creation all working in tandem. *Norowzian*[456] and the observation that editors – as creators who can drastically shape the reception of the work, can arguably be treated as authors, demonstrates how and why there is this simultaneous over-under protection for certain categories like interactive creations. Where there might be a disconnect between traditional legal conceptions of authorship and what normatively might be a more appropriate theoretical account of authorship for interactive creations. Leading to protection being conferred on the wrong people or for the wrong qualities. And explains why certain characteristics might be elevated or overemphasized to indirectly provide protection for qualities, or individuals which copyright cannot recognize as authorial.

Finally, authorship is contingent on the objectives and contexts of creation practices, so the difficulties in identifying individual authors become exacerbated in the context of interactive creations, which commonly facilitate collaborative creative practices, which in turn changes the authorship dynamics and makes the work inchoate. To reiterate, authorship entails personality and individuality, and authorship over a work is considered determinate and static. But for an inchoate work, it can be difficult to identify when and where authorship begins, ends, and what in turn is *their* work, or what even is the work at all. One example of the problems in identifying the boundaries of authorship is raised by Gompel, noting the challenges and difficulties that inchoate and 'open collaborative' projects like Wikipedia presents. As Gompel explains:

"When a new Wikipedia entry is started, it will almost certainly reflect the personal touch of the first contributor…However, the more the entry is elaborated on, the more pertinent the question becomes how much space is left for subsequent contributors to leave a personal stamp on it. Being part of a group effort not only creates restrictions for individual choice, but succeeding contributors also seem to be constrained by the creative choices that others have made before them. Over time, the entry may undergo changes by so many different people that recognisable personal imprints of earlier co-creators can completely be erased by alterations of later contributors."[457]

[456] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[457] van Gompel (n 451).

As such they argue that the practical questions which are required by the legal tests become difficult to implement in the context of open-ended works like Wikipedia entries. Arguing that whilst initial boundaries may be drawn with some degree of success, that subsequent alterations and additions increasingly undermine an exercise in identifying authorial input in the form of 'personal imprints'. They expand on this noting that depending on how the tests are interpreted and applied to works like this, standards of authorship and originality may become disproportionate. Where if greater weight ascribed to the constraints facing "subsequent contributors who elaborate on existing entries, then copyright's originality test would arguably set a higher threshold for large-scale collaborative works"[458] Leading to consequences on the availability and rules of protection for these kinds of collaborative works, which may have been unintended.

These concerns are equally true for interactive creations, and Reuveni similarly expresses concerns about applying the models of authorship to interactive creations as a medium of expression which is not only inchoate, but which invites a radically new approach to understanding the relationship between author and audience. Reuveni notes that "copyright law generally assumes that copyrighted works are the product of a single, guiding author, and that the product of this singular author remains static once fixed. In effect, copyright law enshrines the initial author of any creative work as the arbiter of that work's final meaning".[459] Explaining that copyright presumes a clear distinction between authors of works and audiences or end users. Reuveni then goes on to argue that although historically made sense, since conventional creations did not allow or facilitate consumers to contribute anything creative or authorial to the actual work itself, with new digital technologies and new tools for creative production, audiences are no longer passive consumers. Arguing that because new digital and entertainment products which allow for radically more interaction than previously available, consumers are no longer merely passive, and can now be creators in their own right or as Reuveni terms them – "conducers".[460] As such, Reuveni stresses that copyright's outmoded approach to defining authorship is ill equipped to examine the

[458] ibid.
[459] Reuveni (n 215).
[460] ibid.

creation practices in digital environments, and criticizes the binary author-audience framework prescribed by copyright's authorship model.[461]

What Reuveni's argument in particular reveals is a gap in copyright's conception of the inchoate, where similar to the dissonance emerging from the contrived objectivity through material boundaries, there is also a disconnect between the fabricated terminus of authorship and creation. Which although might be fine for traditional works or some traditional works, causes problems for inchoate interactive creations. Likewise, this critique demonstrates a specific gap in the conception of copyright's authorship, a short-sightedness that fails to accommodate an inchoate intangible, and accordingly demonstrates how copyright's current framework might confer protection on the wrong kinds of qualities. By for instance artificially tracing assumptions about authorial activity for fixed creations into discussions surrounding authorial activity in inchoate creations. Moreover, if one accepts that an expression or quality could straddle between an author and conducer, it seems reasonable to conclude that protection over these qualities could become unduly limited or expanded depending on copyright's treatment of authors and their relationship with audiences or conducers.[462]

3.4 – Idea-Expression Dichotomy

Various problems with copyright's application of the Idea-Expression Dichotomy were touched on in Chapter 1. In particular it was contended that notwithstanding copyright's purported exclusion of ideas, it nonetheless appears that ideas are capable of being protected. Moreover, with the simultaneous exclusion and protection of facts, techniques and character, it was contended that the application of the dichotomy led to

[461] ibid.

[462] For instance, Boyden adopts the position that for video games and similar 'systems', the value and expression is supplied by users rather than the author and asserts therefore that games entirely fall beyond the remit of copyright. However, in contrast to Boyden, it is the contention of this thesis that video game creators can be expressive authors and original in a copyright sense, the ways in which are outlined in Chapter 5. Nonetheless, whilst the primary focus for present analysis is on how inchoate authorship destabilizes the materiality and temporality of subject matter, it should be recognized that authorship in video games also is a separate complex issue rife with its own theoretical and practical challenges and nuances. For further discussions on the numerous challenges with mediating authorship in video games, and some potential avenues see Bruce Boyden, 'Games and Other Uncopyrightable Systems' (2011) 18 George Mason Law Review 439; Lastowka, 'The Player-Authors Project' (n 215); Catton (n 214); Anthony Michael Catton, 'What Is Mine in Minecraft? Assessing the Copyright and Ownership of in-Game Player Creations (Part 2)' (2020) 3 Interactive Entertainment Law Review 21.

a system rife with internal inconsistency, plagued with what appears to be ad-hoc decision making, and theoretical incoherence. Alongside this, the concern was also raised that the given definition of an idea or expression, and the rhetoric applied in abstraction tests did not seem to be consistent, in part perhaps because definitions and analysis may not be universal across subject matter. As such, the malleability of the dichotomy combined with the potential for prejudice means that the dichotomy is less about a distinction between ideas and expressions, and in some ways more about excluding ideas of a certain nature from protection. This section expands on those arguments, and considers the various theoretical explanations for why copyright's application of the dichotomy has been rendered so inconsistent, and why the conceptual dissonance between the dichotomy and specific categories of works are particularly difficult to reconcile. Discussing the conceptual shortcomings of the dichotomy, its arbitrary nature, the overriding effects of policy and its blindness to subject specificities.

3.4.1 – The overarching difficulties with the dichotomy

One of the most common criticisms of the idea expression dichotomy is the objection that ideas and expression cannot actually be separated. For instance, Jones argues that "an idea cannot exist apart from some expression. One may differentiate the form from the substance of a writing, equating the substance with the writing's idea, but any idea must necessarily have an expression." And Masiyakurima equally agrees, contending that "the difficulty of formulating a clear distinction between ideas and expressions of ideas is often a manifestation of the theoretical impossibility of conceiving expressionless ideas."[463] As such, for many critics, the problems with the dichotomy begin with the very premise itself, explaining that the false presumption of severability between idea and expression means that it ceases to be a meaningful or helpful tool for assessing copyright.[464]

Furthermore, there is no precise or universal test for distinguishing between ideas and expressions, and the tools developed to help differentiate idea and expression are limited and unhelpful. For instance, one of the primary supplements to the dichotomy is

[463] Masiyakurima (n 97).
[464] ibid; Rose (n 41); Jones (n 97); Samuels (n 97).

the process of making abstractions, or the abstraction, filtration and comparison test in the US. And whilst this test enables courts to define ideas and expressions, the actual process of abstraction and the conclusions reached are arguably unhelpful. Partly because separating ideas and expressions can be more difficult, or less justifiable depending on the work in question, and partly because any abstraction itself is arbitrary and the conclusions reached inconsistent.

For example, Rosati points out that applying the dichotomy, and abstracting away from the idea to construct expressions is especially difficult in the context of postmodern art. Arguing that:

"abstract expressionism, pop art and appropriation art, highlights how difficult it is to draw a convincing distinction between non-protectable ideas and protectable expressions. Either because these works of art are expressive of an idea (as abstract expressionism), or because they turn everyday life objects into objects of art (as Andy Warhol loved to do), or either because they borrow images from popular culture and mass media (as Jeff Koons did with his famous sculpture of puppies), in all these cases copyright assessment is difficult to carry out."[465]

As such, for creative mediums or works where ideas and expressions are closely bound together, or indeed where the idea is the dominant and driving characteristic of the work, and arguably the valuable or creative quality that copyright would seek to protect, the dichotomy and the application of abstractions suggests that it is conceptually disconnected with its object of protection. And may result in tenuous abstraction exercises which become difficult to reconcile with other works absent any supplementary explanation for the different treatment.

A related difficulty to the challenge of severing ideas from their expressions is the nature of the abstraction test itself. Since an inherent quality of the abstraction exercise is that "[a]n individual can always find an abstract level of commonality between two works if he searches for one."[466] Accordingly, an idea can be constructed at a high level

[465] Rosati, 'Illusions Perdues. The Idea/Expression Dichotomy at Crossroads' (n 89).
[466] Jones (n 97).

of generality in order to facilitate a finding of infringement, or an idea can be defined narrowly and with such precision that infringement is impossible. To reiterate an earlier question: "What made a video game involving 'spaceships and space rocks' an unprotected idea, but a video game involving a pie-shaped gobbler and four ghost monsters a particularized form of expression".[467] Within the context of the dichotomy and the abstractions test, it seems difficult to answer. The dichotomy provides no clarification, and with the innate subjectivity of the abstraction tests, it is difficult to see the abstraction exercise as being anything but an arbitrary. At least not without reference to any additional context or principles which might otherwise shape the degree and extent of abstraction. This leads onto the following issue, which is that the dichotomy is a ex post facto characterization, a posthumous seal of scrutiny that is applied, relying instead on other tools, and policy to assess protection.

Protection of ideas by copyright is not strictly a misapplication of the dichotomy by courts, but rather a testament to the fact that the dichotomy is misleading. Equally, the failure of the dichotomy to acknowledge that not all expressions are protected, likewise undermines the clarity of the concept, since:

"when courts refer to the term 'expression' in this context, they are actually referring only to those expressions protectible by copyright law. Courts thereby produce an ambiguity when they use the term 'expression,' or relate ideas to expressions, without making clear that not all expressions are protectable"[468]

Similarly, courts have been unclear in their use of idea, "some courts appear to use the term 'idea' to refer to unprotectible 'abstractions.'"[469] Whereas "Other courts have used the term 'idea' to mean any unprotected expressions in a protected writing."[470] As such, by conflating the meanings of ideas, expressions, protected, unprotected, the already arbitrary abstraction exercise seems inconsequential. Since if ideas and expressions do not even have fixed meanings, and frequently overlap, any attempt to discern and distinguish the two does not appear to be purposeful or meaningful. Suggesting that the

[467] Lastowka, 'Copyright Law and Video Games' (n 179).
[468] Jones (n 97).
[469] ibid.
[470] ibid.

ad-hoc and unpredictable application of the dichotomy is not solely a product of misapplication, or the result of inappropriate levels of abstraction, but is instead evidence of a deeper conceptual obstacle – overarching policy concerns.

By treating idea and expression as being synonymous with unprotected and protected, whilst nonetheless recognizing that protection exists for both ideas and expressions and vice versa it is clear that the dichotomy does not articulate the distinctions copyright is making.[471] In tandem with the earlier observations surrounding the inconsistencies in assessing ideas as being eligible for protection, it seems then that it is not the distinction between ideas and expressions which shapes protection, but that instead protection defines what is an idea or expression. Since the dichotomy's preoccupation with a mythologised division between idea and expression cannot prescribe the copyright distinctions which seem primarily concerned with eligibility for protection. Nor can it explain why protection is afforded to some ideas but not others.

Rosati for instance argues that, one can examine the structure of the judgement in cases like *Nova v Mazooma*[472] or *Baigent v Random House*[473] to understand that the idea expression dichotomy is only applied posthumously. Suggesting that:

"From the structure of the judgement, (Baigent) it seems that the reliance on the dichotomy is but a seal of a scrutiny carried out mainly through other tools: *the judge had to consider: (i) what relevant material was to be found in both works; (ii) how much, if any, of that had been copied [...]; (iii) whether what was so copied was on the copyright side of the line between ideas and expression; and (iv) whether any of the material that was copied and did qualify as expression, rather than as ideas, amounted to a substantial part"*[474]

Other critics have similarly contended that copyright frequently relies on other considerations to determine how broadly or restrictively they define ideas and expressions, arguing that the discussion of ideas and expressions is a subsequent

[471] ibid.
[472] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).
[473] *Baigent v Random House Group Ltd* (n 110).
[474] Rosati (n 57).

rationalization.[475] In particular, Samuels suggests that because copyright seems more preoccupied with determining whether infringement should be found, or balancing underlying tensions such as private ownership and public access, the dichotomy is effectively an indirect tool which copyright exploits to make decisions rooted in policy concerns. A conceptual gloss masquerading as an empirical assessment.

As such, the incoherence and inconsistency of the dichotomy stems from the fact that its premise – the severability of idea and expression, has little to do with the judicial questions it is tasked to resolve. It is counterintuitive to rely on a tool concerning the metaphysical distinction between idea and expression to answer questions which are unrelated to idea or expression, and are more concerned with protection, infringement and policy.[476] Equally, it is incorrect to retroactively draw conclusions about ideas and expressions to justify conclusions reached relying on other considerations such as policy, as it undermines the efficacy – limited though it may be, of the dichotomy to resolve conceptual problems for other kinds of subject matter which may not share the same underlying policy objectives, or may instead require entirely different and opposite resolutions.[477]

3.4.2 – The difficulties with the dichotomy applied to interactive creations

It has been argued that the ad-hoc application of the dichotomy is in part the product of overriding and potentially conflicting policy concerns. For interactive creations, reconciling policy and by extension the dichotomy proves especially difficult owing to the author-conducer dynamic that typifies interactive creations. This is because on the one hand, there is the question of whether there are necessary or distinct policy considerations which warrant limiting the scope of rights granted to the 'initial' or 'first' author in the context of these uniquely interactive works. To allow use of or creation within[478] the work by audiences or conducers, without fearing a potential claim or overreach by other authors into their works. Conversely, there may also be reasons

[475] Samuels (n 97); AB Cohen, 'Copyright Law and the Myth of Objectivity: The Idea-Expression Dichotomy and the Inevitability of Artistic Value Judgments' (1990) 66 Indiana Law Journal 175.
[476] Rosati, 'Illusions Perdues. The Idea/Expression Dichotomy at Crossroads' (n 89).
[477] Samuels (n 97).
[478] For example, with creation type games that facilitate player-authored creations within the context of play. See Catton (n 214).

to broaden the scope of the 'initial' author's rights to prevent conducers and subsequent users from trespassing into their rights, and retroactively seeking to claim rights in the underlying and initial work. As such, the question - how should a dichotomy be applied to works where there is a presumption and expectation of reuse of both expressive and non-expressive qualities, is uncertain and unlike most traditional works; where the relationship between authors, audiences and the work are more clearly defined. And, considering the close relationship of authors and protected expressions, the specific and unique relationship of authors and conducers warrants clarification if not separate rules altogether.

Another concern with applying the dichotomy to interactive creations is the fact that as creations, they are partly functional – to facilitate the interaction, and that they are more frequently works which straddle idea and expression. Making the inherent presumptions that copyright already makes regarding ideas and expressions especially difficult to apply. Masiyakurima touches on some difficulties on applying the dichotomy to software more generally, observing that "applying the idea/expression dichotomy in cases involving computer programs is notoriously difficult since the ideas and expressions underlying a computer program are the program".[479] This is equally true for interactive creations which include a software component, and there is even arguably a further additional issue in the form of the overarching structure, design or arguably even 'plot' of a video game. Where the system and structure and its connectedness with the objective and rules of the game are similarly closely tied to the software which facilitates it.[480] Making it difficult to not just dissect ideas from expressions as a matter of form or substance, but also difficult to distinguish protected ideas from non-protected ideas as a matter of policy.

This task is further complicated by the coexistence of more traditional qualities which copyright has elected to view as expressive (or expressive enough) and therefore protected such as characters, plots or visual elements. To reiterate, copyright tends to posthumously ascribe the status of idea and expression after assessing other policy and infringement questions. And because of policy considerations on software and the

[479] Masiyakurima (n 97).
[480] Boyle (n 429); Samuelson (n 223).

inclination to treat them as ideas and therefore unprotected, it is argued that copyright often elects to elevate different or other ideas which are more amenable to its existing conclusions made about what qualifies as an idea or expression. As such, because narrative or visual elements are easier to reconstruct as expressive or sufficiently 'fanciful' to be treated as expressions, they are used to indirectly protect qualities copyright seeks to accommodate, or to prevent against unwanted infringement. Notwithstanding the fact that outside the context of the creation or understood in the medium where those qualities are ordinarily protected, they would be frequently or likely treated as ideas and not subject to protection. Demonstrating a significant drawback of using the dichotomy as a policy driven tool, which is leveraged to reconcile subject specific policy challenges, but then applied universally across different subject matter, ostensibly to determine questions of form or substance. And provides a partial and preliminary explanation for why the conclusions about character were reached in North American Phillips[481] and *Spry Fox*[482].

3.5 – The Work Concept

The problems with copyright's work concept are central in understanding why copyright is unable to circumscribe interaction creations. This is because the work concept is crucial to numerous other copyright questions including authorship, originality, infringement and the idea expression dichotomy. The work concept pervades these principles[483] and, in some ways, acts as the locus that allows these very doctrines to crystallize and intersect with one another. After all, how can one determine what is original without first understanding the contours of what is being inspected, and similarly, how is infringement to be assessed without identifying what is being compared? However, what precisely is a work is unclear, and there are obstacles which undermine the application of the work concept and which prove particularly challenging for interactive creations – the emphasis on material characteristics, and the limitations with subject matter categorization.

[481] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[482] *Spry Fox v. LOLApps* (n 348).
[483] Including overt acknowledgement by various legal instruments - for instance in US law, copyright exists in "original works of authorship fixed in any tangible medium of expression", UK law protects copyright and copyright works, and Berne setting out protection for literary and artistic works.

3.5.1 – The absence of a work definition

The most simple and fundamental difficulty with assessing and understanding the work is the absence of any explicit or overt definition of the work. And not only is there a lack of any statutory definition for the work, but the methodology for prescribing the boundaries of the work are equally unclear.[484] To some extent, this is because actually discerning what is a work is not routinely a question that courts need to confront since usually a work will correspond with works which it already recognizes, often by virtue of the kinds outlined by the subject matter it protects. Likewise, when courts are confronted with unconventional works, they often sidestep it by focusing on ancillary concepts such as authorship and originality.[485] However, when questions for identifying and circumscribing the work cannot be evaded, copyright seems to rely on a plethora of different approaches and tools to identify the work,[486] doing so in ways which have been inconsistent and unsatisfactory. In particular, two broad approaches adopted by copyright have notable shortcomings. Specifically, the reliance on tangible boundaries, and the application of other copyright doctrines, especially subject matter, introduce limitations which undermine copyright's ability to successfully describe and identify the work.

Of the various methods to identify the work, arguably "[t]he most consistent and widespread approach that has been used to determine the ambit of the work has been to equate it with the parameters of the material object in which it coexists."[487] This is perhaps unsurprising because where it is possible to treat the boundaries of the material object as being the contours of the work, this will likely be the easiest and most straightforward option.[488] However, this approach is far less helpful when the contours of the intangible do not correspond to those of the material object, and indeed it is not

[484] Sherman (n 67); Mccutcheon (n 78); Paul Goldstein, 'What Is a Copyrighted Work? Why Does It Matter?' (2011) 58 UCLA Law Review 1175.
[485] Mccutcheon (n 48); see Mireille van Eechoud, 'Adapting the Work' in Mireille van Eechoud (ed), *The Work of Authorship* (Amsterdam University Press 2014) discussing *C-604/10 - Football Dataco and Others v. Yahoo! UK & others* (n 583).
[486] Sherman (n 67); Pila, 'An Intentional View of the Copyright Work' (n 85); Mccutcheon (n 78).
[487] Sherman (n 67).
[488] ibid.

always going to be the case that the two coincide.[489] The fact that copyright transcends the object means that this approach is invariably of limited use when it comes to assessing questions that concern the very intangible qualities copyright seeks to protect. Not to mention the co-equating of material boundaries with the intangible may lead to considerable incoherence considering the work is purportedly a hybrid of the material and immaterial. And as will be shortly discussed in greater detail, reliance on material qualities is contingent to some extent on not just the object, but the medium and subject matter, since for some mediums or subjects matter, emphasizing materiality may be inappropriate.

In defining the work, copyright has also sometimes elected to rely on other copyright doctrines to give shape and meaning to the work. For instance, under the European approach, the benchmark for protection is evidence of an author's own intellectual creation. As such, rather than taking a taxonomic approach or attempting to define the precise object of copyrights protection, the question of the protected entity can be subsumed into questions about protected qualities.[490] Sidestepping questions about identifying what the work is per se, and relying on instead on the requirement for originality – an author's own intellectual creation, and following *Levola*,[491] the additional qualification that a work is identifiable with sufficient precision and objectivity.[492] And even outside the European approach, courts have to sought recourse to other copyright principles and doctrines to address questions concerning the work.[493] As McCutcheon contends, the various doctrines can act almost as a filter, and define the work by way of exclusion. Arguing that through authorship, fixation, the idea-expression dichotomy, and so forth, copyright can eliminate what the work is not and define it accordingly.[494]

[489] ibid.
[490] ibid.
[491] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV* (n 39).
[492] Jani McCutcheon, 'Levola Hengelo BV v Smilde Foods BV: The Hard Work of Defining a Copyright Work' (2019) 82 The Modern Law Review 936; Caterina Sganga, 'The Notion of "Work" in EU Copyright Law after Levola Hengelo: One Answer given, Three Question Marks Ahead' [2018] European intellectual property review.
[493] Sherman (n 67); Pila, 'An Intentional View of the Copyright Work' (n 85); Mccutcheon (n 78).
[494] Mccutcheon (n 78).

However, there are several drawbacks to relying on these principles to construct the copyright work. For instance, relying on the doctrines of authorship or originality to construct the work concept is in many respects cyclical. "If authorship and original works are correlates…this conception is problematic, for it proceeds from the existence of a "work", which is part of the object it is seeking to establish."[495] It does not seem correct to rely on doctrines that presume the existence of a work which pre-empts their own constructions and themselves are "only made coherent in relation to 'works'"[496], since it is far from obvious where the analysis of each respective principle begins and ends. And it does not help copyright's clarity to introduce this chicken-egg conundrum for an already unclear doctrine.

Moreover, indirectly defining the work through other principles "potentially shifts the focus away from a taxonomic inquiry",[497] and further diminishes the work concept of having any actual benefit, prescriptive or otherwise.[498] For example, whilst infringement tools like the idea-expression dichotomy might help shape our understanding of what intangible qualities might be eligible for protection, "it tells us very little about how the intangible is represented or about its relationship with the material form in which it subsists"[499]. Worse still, by emphasizing the other principles, copyright imports all the problems with authorship, infringement and subject matter,[500] For instance, limitations of copyright's authorship model, such as its failure to recognize that multiple authors may be working together to produce works, or that authorship differs across mediums becomes extended to the work as well. However, the most significant difficulties emerge from the reliance on subject matter categorization to circumscribe and define the work, especially for works which like interactive creations, do not readily fit within copyright's enumerated subject matter lists.

3.5.2 – The shortcomings and biases of subject matter categorization

[495] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[496] Mccutcheon (n 78).
[497] Sherman (n 67).
[498] ibid.
[499] ibid.
[500] ibid; Mccutcheon (n 78).

The problems which emerge from copyright's reliance on subject matter to give shape and meaning to the work concept are best demonstrated by British copyright, since the Copyright, Designs and Patents Act 1988 clearly entrenches work and subsistence firmly within its enumerated categories.[501] This overt classification of works into categories, the recognition of specific subject matter and emphasis on certain characteristics which correspond to categories leads to several problems. The most obvious issue being that although the work supposedly transcends and is independent to subject matter, the retention of the categories explicitly and implicitly undermines the autonomy of the work principle. As Pila argues, "The implication of the Act and its definitional provisions is that LDMA works are categories of works organized according to properties of form…[and] that the meaning of "form" varies between categories." Which suggests that by extension, there are different conception of what is a work, contingent on how it correspond to the outlined forms and categories. Contradicting the assumption that the work concept is stable, and that there exists in copyright a core concept of "work"."[502]

This Pila argues is also evidenced by the fact that although the reference to work in each respective definition implies that to identify an LDMA work one begins by assuming that there is a work before considering whether it is of an appropriate type; for specifically artistic works, the definition and recognition of a work is conditional on the material objects outlined by the statute.[503] Furthermore, the recognition of certain objects as the subject of copyright's protection wrongly relocates the focus of copyright back into subject specific material and tangible qualities. As Yin points out:

"While the overall structure of the current legislative framework is organised around a subject of protection that is an abstract, dematerialised entity…The language of "literary, dramatic, musical and artistic works" does not merely provide a general indication of the types of subject-matter falling within copyright's purview; instead, it establishes four discrete—and exhaustive—categories with substantive boundaries that are defined almost entirely by the formal properties of the subject-matter concerned."[504]

[501] Pila, *The Subject Matter of Intellectual Property* (n 14).
[502] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[503] ibid.
[504] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78) 2.

Clearly the emphasis on material qualities serves to undermine the conception of the work as an abstract and hybrid concept which is both tangible and intangible. However, the more concerning issue is that the work functions as an intermediary across numerous other copyright doctrines, including those which are predicated on the work as a quasi-intangible subject. And as such by elevating the formal properties of the work, the "sensory surface and other non-relational properties intrinsic to the object",[505] copyright limits the application of those doctrines by either imposing the limitations and biases of a more physical copyright subject. Or by encouraging analysis which seeks to appreciate the subject of copyright and makes conclusions about the nature of the work and the rights attached to it in alignment with its tangible properties. Regardless of whether such an approach is appropriate. In a sense, this more object-oriented approach is arguably regressive in that it is closer to earlier copyright-like protection where the scope and rights were more concerned with the material artifact, and the practices and production associated with it.[506] And for example, since contemporary conceptions of authorship do not readily accord with an approach which elevates and emphasizes the object, nor does infringement in terms of non-literal copying, there is significant scope for potential dissonance between the protected work and the associated doctrines, and for the ways which copyright tries to reconcile the work and these related principles.

Moreover, by recognizing distinct categories as deserving of protection, and by defining the work in reference to certain categories, copyright prescribes meaning to the work by correlating it to specific subject matter. As a result, either copyright is forced to make generalizations about the definition of the work across different subject matters where such abstractions make no sense, or it has to recognize that the work is conditional on the subject matter in which it is being perceived in and thus defeating its function as a general "common denominator".[507] Which as a further consequence unduly limits protection to the kinds of works which either fit within the categories, or can be made amenable to any requirements set out by the categories of protection. It is this latter approach which seems to be the approach ultimately taken, since the

[505] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[506] ibid.
[507] Griffiths (n 402).

standards of protection and the qualities of the work do not seem to be consistent or coherent across various subject matter categories. And since likewise, the categories and cases interpreting them seem to imply that "the meaning of "form" varies between categories; literary form connoting a mode of presentation, artistic form a mode of creation, and musical/dramatic form a stability of composition".[508]

Parallel to this is the confusion over the significance and relevance of material form in defining the work. It was noted above that the construction of the work in statute is for the most part predicated on the presumption that the work exists, before assessing it in relation to the appropriate categories. However, this seems not to be the case for artistic works, and indeed it is not clear whether material fixation is a common requirement for all LDMA works. Pila expands on this arguing that whilst section 3(2) of the CDPA confirms that literary, dramatic and musical works exist independent of their physical recordings, a sentiment equally reflected by various cases such as *Hyperion Records*[509] and *Norowzian*[510]; whether the same is true for artistic works is unclear.[511] In part owing to their exclusion from section 3(2),[512] and in part owing to the Hansard debates which emphasized the material nature in defining the remit and statutory types of artistic works.[513] On the other hand, Pila points out and contrasts this with *Lucas v Williams*[514] which concluded that the question of the canvas was more a question of evidence rather than subsistence, and the physical painting itself need not be produced. Which implies that artistic works may in fact be distinct from their material fixation.[515]

Relatedly, the elevated importance of subject matter in constructing works carries several significant consequences for works which do not readily fall within a category. For instance, it means that unconventional works or works with challenging forms can be particularly difficult to accommodate or assess. For example, earlier examples of conceptual art demonstrate how failure to meet to correct or appropriate formal requirements of art might prevent the recognition of a copyright work. And how the

[508] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[509] *Sawkins v Hyperion Records Ltd* (2005) 1 WLR 3280.
[510] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[511] Pila, 'An Intentional View of the Copyright Work' (n 85).
[512] ibid.
[513] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[514] *Lucas v Williams* (1892) 2 QB 113 (QB).
[515] Pila, 'An Intentional View of the Copyright Work' (n 85).

reliance on formal qualities and standards may result in unconventional or innovative works which push and challenge the formal expectations of what is a work being difficult to accommodate.[516] Especially concerning for works which straddle multiple categories is the issue of incorrect categorization. Where the inappropriate categorization might lead to irrelevant or inaccurate presumptions that wrongly dictate how copyright makes sense of the work.[517] For instance, Pila contends that "the Court of Appeal was wrong to decide in Norowzian v. Arks Ltd (No. 2) that a film can exist qua dramatic work, for while a film can be "shown", it cannot be "performed", as the different use of those terms in the CDPA reflects".[518] Recall earlier that it was contended that the work permeates and acts a basis for numerous other copyright doctrines. As such, if Pila was correct that the work in question for *Norowzian*[519] was wrongly constructed as a dramatic work, then there is potential for any of the analysis which is predicated on the work – such as conclusions made about authorship and infringement, to have proceeded on incorrect assumptions about subject it sought to assess. Therefore, the disparate protection in copyright could not simply be a product of differing standards of the work which may exist across categories, but also a result of incorrect application of categories to shape and make sense of the work.

As a final aside, considering that the aforementioned cases and statutory instruments concern UK copyright, one might reasonably conclude that this is a predominantly British problem. However, the absence of definitive and exhaustive categories does not mean that similar analysis and problems do not emerge for other copyright jurisdictions. And for the most part, the challenges which emerge for the categorization of interactive creations under UK law are similarly reflected in US and European copyright jurisprudence. Primarily because whilst US and European conception of work are purportedly open-ended, there is still an approach to constructing works which either explicitly reiterate categories or subject matter specific characteristics and biases for the assessment of a work. For example, although the US's works of authorship implies that categories are less central than they might be with British

[516] Bently and Biron (n 427). For further discussion of this see 4.3.
[517] Pila, *The Subject Matter of Intellectual Property* (n 14).
[518] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[519] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

copyright, there is still a significant reliance on categories to define and in turn circumscribe the works protected under US copyright. As Samuelson contends:

"In the nearly forty years since Congress passed the 1976 Act, the only types of creations that became recognized as copyright subject matter were those added by Congress…Despite the ingenious arguments of numerous commentators, the "works of authorship" meta-category has not come to be understood as having more than a potential for significance beyond the enumerated categories."[520]

And with respect to EU jurisprudence, there is the explicit recognition of material characteristics and privileged objects in how the Resale Right Directive constructs 'original work of art', [521] and the CJEU's continued reliance on "the language of formal subject-matter categories"[522]. Such as the reference to and emphasis on article 2(1) of the Berne Convention by both the AG opinion and the CJEU in *Levola*, alongside the apparent new conditions of precision and objectivity which together reiterate the persisting importance of subject matter and materiality notwithstanding the supposed autonomous status of the work. As such, it seems arguable for both American and European copyright that like the UK, protection will for the most part be defined by virtue of analogy to existing categories and existing conceptions of works. However, this seems ill advised. As already emphasized, it is arguable whether or not it is appropriate for works to be arbitrarily sundered into the various categories in order to identify independent works, or to identify the characteristics worth protecting. Especially since the rhetoric and basis for it arguably stems from a subject matter which is not representative of the actual work in toto. And doing so might introduce potential assumptions and limitations which have iterative implications for infringement or authorship or any other legal analysis which is predicated on the fundamental conception of the work. This the primary argument made in the below, in particular outlining how the biases and restrictions which emerge from subject specific presumptions lead to overprotection and underprotection for interactive creations.

[520] Pamela Samuelson, 'Evolving Conceptions of Copyright Subject Matter' (2016) 78 University of Pittsburgh Law Review 17.
[521] Directive 2001/84 on the resale right for the benefit of the author of an original work of art [2001] OJ L272/32 (Resale Right Directive) art.1(1).
[522] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78) 2.

3.5.3 – The limitations of the work applied to interactive creations

The two issues which cause the greatest difficulties for interactive creations are the work's emphasis on material and tangible qualities, and the reliance on subject matter categories to make sense of works. With respect to the reliance on material form, there are additional difficulties because interactive creations are works which span multiple different material bases, have fluctuating boundaries and are more dynamic and fluid than most traditional works. Which also means that the intangible copyright subject is less readily circumscribed and correlated to tangible boundaries. This is worsened by the fact that copyright utilizes subject specific analysis to construct works, and since there is no corresponding category for interactive creations, they are protected disparately and by reference to subjects which do not accurately reflect the qualities and characteristics of interactive works. Which as a result has implications for numerous other copyright doctrines which are dependent on copyrights underlying work concept. As such, these issues will be discussed and considered in turn.

A fundamental defining feature of interactive creations is arguably the distance of the creation or 'work' from any of the material objects within which it is perceived or contained. In particular, Echoud has argued that there are serious implications for the work concept with the transition from analogue to digital, arguing that: "Although in most instances, it will remain easy to identify a 'discrete work in reality'…there seems to be a growing number of situations in which it becomes difficult to do so.".[523] Specifically, Echoud notes how dynamic works, works which are not fixed because they are inchoate or invite subsequent alterations present notable challenges for key copyright concepts such as the work and adaptation. [524] For if a work is to be anchored with boundaries drawn in order to be perceived by copyright, how is a work which resists stasis be given concrete and stable borders? And whilst works are purportedly abstract entities, the fact that copyright elects to emphasize physical qualities, or objects and characteristics common to certain subjects means that the work is ultimately going to be fixed. Leaving the disconnect between the intangible and fluid subject with its material subject the collateral damage to facilitate copyright comprehension. However, because there are numerous other principles which intersect

[523] van Eechoud (n 489).
[524] ibid.

with the work, the dissonance between the subject and the copyright work destabilizes those concepts by extension. For instance, there are difficulties in understanding the concept of adaptation for fluid works. As Echoud argues:

"The notion of adaptation makes sense in situations where there is one source work, and a follow-on creation that comes distinctly later in time. The concept becomes difficult to operationalise if there are multiple source works involved, or if a 'work' is continually updated or consists of versions that are created simultaneously or in quick succession…And what to make of interactive works, like 'database documentaries' that consist of a series of tracks or guided paths through one or a number of (virtual) databases containing various types of items (e.g. static text, image, sound, live feeds) that allow the reader/viewer to 'create' his own documentary…Is each 'path' a copy or adaptation, and of what exactly? What constitutes the work in such cases, all of the potential instantiations combined? Copyright laws provide no clear answers because of its traditional orientation on materially distinct forms." [525]

As such owing to copyrights frequent reliance on material forms to circumscribe the work, as well as its assumption that the material forms correspond to the actual subject of copyright that it seeks to protect, interactive creations become difficult to accommodate. To an extent this is because the digital and frequently abstract nature of these creations are not amenable to the material form which underlies the work. More so than traditional works the intangible subject is disconnected from the physical object or objects in which in inhabits, partly because it spans multiple physical bases, but primarily because it is digital, interactive, and inchoate. Accordingly, the kinds of changes which take place at various stages of abstraction are not readily conceived by the kinds of abstractions that take place for understanding copyright subsistence or relatedly for circumscribing the work, which are predicated on the work being static.

This is likewise a problem for assessing infringement, since with the uncertainty surrounding the extent, nature and frequency of updates, it is difficult to pinpoint when the work becomes fixed for the purposes of infringement and the comparisons which take place during infringement. With each subsequent alteration, "it becomes more

[525] ibid.

difficult to establish the point in time at which the new version is not just a copy but an adaptation protected in its own right…What, in other words, is the cut-off point for determining originality?" .[526]

With the increased uncertainty over the work and the close links between originality and works and authors, it becomes difficult to disentangle any of these crucial copyright concepts. Since the understanding of each respective principle flows from the fundamental impression of the work, which either is constantly in flux, or has been prescribed an identity by copyright which may not actually reflect the subject copyright is purportedly protecting. These issues are especially pronounced for European copyright with the centrality of originality and the additional condition that works "must be capable of being expressed in a precise and objective manner"[527] in characterizing works. With the inchoate nature of the interactive creations destabilizing the link between the author and the resulting intellectual creation, as well as undermining attempts to identify the work precisely or objectively. Since player interactivity, and the open-ended nature of these creations means that the work and its boundaries remain in flux, and resit being fixed objectively and precisely. Thus, at some point copyright is forced to make a concession, either with respect to how it perceives the author, infringement, or the work itself. This is not entirely unique to interactive creations, and as we've seen authorship in works such as film frequently make assumptions about authors or authorial activity which may not reflect practice or film theory as such, but nonetheless, this is further evidence as to why there exists so much dissonance for interactive creations. As well as why the specific problems they pose for understanding the work, including their inchoate nature, has so many implications for various other concepts. The absence of a coherent understanding of the unique challenges posed by these creations are then exacerbated by the absence of a corresponding category which further defeats their appreciation by copyright. Since alongside copyright's limited tools are the imported biases which emerge from protection by analogy.

[526] ibid.
[527] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV* (n 39).

Turning now to the difficulties connected to subject matter categorization. It was suggested earlier that the disparate protection in copyright may be a result of improper categorization of works, or in the case of interactive creations, the absence of an appropriate category to conceive of the work. It is contended that this is because without a corresponding category of protection, interactive creations are left to be assessed by analogy to whatever categories are available, or to whatever categories that legislators or courts perceive as most appropriate. Moreover, categories carry assumptions about the nature of the work they encompass, and in turn prescribe conclusions for other copyright doctrines which are predicated on assumptions about the nature and characteristic of the work in question.

Yin in particular has commented on certain assumptions which courts have made about the work – specifically its tendency to emphasize the material qualities of works and focus on the textual qualities of literary works. Noting that these biases have influenced how courts have constructed various copyright principles and can lead to conclusions which may be inappropriate. Especially for works which have been artificially shoehorned into a category. To elaborate, the emphasis on text as a formal characteristic[528] of literary works carries connotations for how joint authorship is assessed and has implications for determining the kinds of qualities and authorial activities which copyright confers protection on. For example, the judicial analysis in Robin Ray v Classic FM[529] demonstrates how text – as a formal characteristic of literary works, shapes copyright conceptions of what literary authorship and authorial activity is. Where Lightman J explained that for literary authorship, "what is required is something which approximates to penmanship. What is essential is a direct responsibility for what actually appears on the paper".[530] A rhetoric which accordingly limits the available scope of authorship, and as demonstrated by Brighton v Jones,[531] places undue emphasis on material contribution rather than contributions of a consequential nature. As Yin argues, the judgement in Jones "was more preoccupied with the extent and significance of the changes that had been made to the *script* as a

[528] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 48) citing *Tate v Fullbrook* (1908) 1 KB 821 (CA); *Tate v Thomas* (1921) 1 Ch 503 (Ch D); *Donoghue v Allied Newspapers Ltd* [1938] Ch.
[529] *Robin Ray v Classic FM* [1998] FSR 622.
[530] ibid.
[531] *Brighton v Jones* [2004] EWHC 1157.

result of the claimant's suggestions, rather than any changes to the plot itself."[532] As such, the court diminished the significance of cutting and repositioning scenes, and overlooked the potential effects which moving scenes around might have on the overall work. Demonstrating how assumptions about the nature of the work can have prejudice the application of other principles and carry consequences for subsequent analysis. As discussed, copyrights recognition of authorial activity is already limited by the assumptions it makes, both about the nature of the subject it seeks to comprehend, as well as about the nature of authorship itself. Therefore, if authorship is further constrained by expectations about what the work is, for example, that contribution of the right kind are the 'written kind', then the potential disconnect between authors and practice may grow even wider. These difficulties become especially pronounced when works become shoehorned into categories, and protection by analogy has proven particularly problematic for computer programs.

The foremost problem for computer programs can be traced all the way to their inception, where the possibility for a unique and appropriate category for their protection was refused. For instance, despite receiving recommendations and submission that a separate category be created to protect computer programs, the Whitford Committee report in 1977 concluded that "such legislative intervention was unnecessary, as the existing category of "literary works" was broad enough to include computer programs".[533] And this view of computer programs has persisted into the CDPA, and is likewise similarly mirrored in other international statutory instruments. As a result, the nature of analysis for computer programs has been forced to apply a literary lens in assessing the work and has had serious implications for subsequent decisions. Specifically, since the categorization of a work tells us "how correctly to perceive it when determining infringement"[534], the infringement analysis for computer programs has been limited to applying literary assumptions about the kinds of qualities that are protected and the manner in which those qualities are assessed.

[532] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).
[533] ibid 2.
[534] Pila, 'Copyright and Its Categories of Original Works' (n 71).

For example, there is the approach taken in Thrustcode v WW Computing[535] where it was concluded that "the most appropriate way of determining the degree of similarity between the plaintiff's and defendant's programs was to engage in a side-by-side comparison of the former's code with the latter's, just as one would do in the case of more traditional literary works"[536] Which seems strange considering unlike a traditional literary work, the purpose of a computer program is not to be read, at least not conventionally understood, by an 'audience'. Moreover, as has been stressed throughout, the fundamental and defining characteristic of computer programs and interactive creations lies in their interaction. The behaviour and experience that comes from the program, rather than the text and code underlying it. And as such, the perception of the work is not so much through the text as it would be for a traditional literary creation but the experience.

To some extent, this may have been more understandable at the time, "given the relative simplicity of computer programs at the time."[537] As such, any behaviour or interaction was likely limited, and similarly the ways in which any interaction could be prescribed by the code was similarly restricted by virtue of the undeveloped technology. And in any event, the cases concerned literal copying, and as such it wasn't necessary for courts to consider whether qualities beyond the code ought to be protected by copyright. However, technological advancements has meant that non-literal copying is now easier. And equally, the interactive experience has evolved in importance and complexity, suggesting that the question of how and whether to look beyond the literal code grows increasingly important. However, whilst technology has evolved, and with it the works it underscores, copyright not updated its conception of the copyright work to accommodate the developments. And its reluctance to do so meant that it continued to apply the literary lens to shape its perception of the work.

For instance in Navitaire,[538] Pumfrey J ruled out effective protection for non-formal properties of computer programs, emphasizing a text-centric view of the work rather than looking towards its performance. Where Pumfrey J rejected the analogy of a

[535] *Thrustcode v WW Computing* [1983] FSR 502 (Ch D).
[536] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 48).
[537] ibid.
[538] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).

computer program's function to the plot of a literary work, and in doing so, emphasized the lack of themes, events, and narrative flow. [539] Stressing that a closer comparison would be to a recipe, where the substance is better understood as an instruction, and protection drawn in relation to the writing and text itself. Ruling out potential recognition of a computer programs behaviour as a subject for copyright to consider, whilst also reiterating that the application of literary concepts, or assumptions common to assessing literary analysis, including plot, narrative, and theme, are relevant for the assessment of computer programs. This rhetoric is likewise reiterated in SAS, where Arnold J echoes the sentiment made by Pumfrey J by explaining that:

"The reason why the plot of a novel or play is protected in an appropriate case is that the plot forms part of the expression of the literary work. The correct analogy in the case of computer programs is with the design of the computer program. The functions of a computer program have no counterpart in the case of novel or play because a novel or play has no function in that sense."[540]

This emphasis on the plot as an expression of a literary work once again demonstrates how protection qua subject matter, or here, protection qua literary work can shape the analysis and in turn qualities available for protection. Especially since as Yin argues:

"In arriving at this conclusion, Arnold J appeared to indicate that any skill, judgment and labour that went into the conception and elaboration of the behaviour of a computer program was the "wrong kind" of skill, judgment and labour for copyright purposes, and therefore could not be protected by the copyright subsisting in the resulting program. This was, again, a decision that reflected a text-centric view of the computer program, one which equated the "expression" of the program solely with its textual code and excluded the functionality and behaviour produced by that code"[541]

This same approach was reaffirmed by the CJEU when it came to consider SAS, where it again narrowed the protection afforded to computer programs to the choice, sequence and combination of the words and concepts rather than looking at how and the

[539] ibid.
[540] *SAS Institute Inc v World Programming Ltd* [2010] EWHC 1829 (Ch).
[541] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).

implications of how they are implemented. And beyond SAS the CJEU has continued to apply this textual model to its assessment of computer programs. For example with BSA, it rejected the assertion that the graphic user interface composed part of a computer programs expression, as Yin points out "Like the courts in the UK, the CJEU was locating the protected expression of a computer program in its textual code, rather than adopting a broader view of the computer program that would have encompassed its behavioural elements."[542] As such, for interactive creations, to the extent that they are treated as computer programs, or even to the extent that they are treated as their constitutive components, the available protection for them will invariably always turn on whichever subject matter is used to assess the work.

For instance, the application of a literary lens will mean that the protection afforded to the code will likely be limited, however, it may simultaneously mean that where there are qualities which readily lend themselves literary analysis, those traits will be afforded protection in copyright. Likewise, it is arguable that copyright might instead seek to identify other traits which exist as part of the protected work or subject as a whole, but are in copyright terms, independent to the computer program as a distinct work – such as art assets, and instead determine questions of subsistence or infringement on those characteristics instead. Indeed, it may even mean that those qualities will be conferred greater protection than they ordinarily might, to facilitate protection against non-literal copying which as has been demonstrated, can prove difficult in the context of interactive creations. Owing to the assumptions about what ideas and expressions are, and likewise presumption about the nature of the work which informs the abstraction exercises which facilitate the conclusions made about ideas and expressions.

This approach can be identified in US videogame caselaw as well, for example, applying this logic to *Spry Fox*,[543] it provides one explanation as to why the court may have been so willing to elevate the trees, or hills and other basic narrative or artistic characteristics to the status of protected expressions. To facilitate what was essentially non-literal copying of the games performance and behaviour, which it otherwise cannot

[542] ibid.
[543] *Spry Fox v. LOLApps* (n 348).

protect owing to the limitations of the tools afforded to copyright surrounding computer programs. And similarly, this could also be an explanation for the elevation of the gobbler character in *Atari v North American Phillips*[544]. Where the court arguably amplified the expressiveness of the gobbler and other more conventionally understood attributes, to indirectly protect the subject – the play and behaviour of the game, which ordinarily is difficult to accommodate as part of the object focused work.

3.6 – Conclusion

This chapter has shown that there are several inherent limitations with copyright's principles which defeat their successful application and make copyright inhospitable to interactive creations. Common to all these principles is the absence of appropriate subject specific solutions or analysis to facilitate a more appropriate and coherent application of its principles. It was further argued that one of the most fundamental problems was with copyright's work concept, as the 'subject' to which copyright's tools and principles are said to apply. A concept which has proven unhelpful because of its lack of any definition, the tendency to equate objects or certain physical qualities to the work to the extent that it contradicts the hybrid nature of the work, and the reliance on categories to make sense of works despite it being a supposedly autonomous concept. A reliance which means that the availability for protection is limited, since defining the work must be done by virtue of the subject matter available – literary, dramatic, musical, artistic, and to whatever objects and forms which copyright privileges in its categorization and classification of works.

As such, it was argued that interactive creations are particularly worse off as they lack a corresponding category and must be disparately protected and shoehorned across various categories and objects. Which demonstrates why certain characteristics have been overprotected and forced to overcompensate for the absence of interactive creations in copyright's subject matter categorization. Besides the lack of formal categorization, there are further reasons why copyright's subject matter is unsatisfactory for accommodating interactive creations. And as the following chapter

[544] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).

will contend, the way copyright has defined its subject matter is limited both for the works and subjects that it overtly recognizes, as well as for interactive creations.

Chapter 4 – Why copyright's subject matter is limited for interactive creations

4.1 – Introduction

The previous chapter examined why copyright cannot accommodate interactive creations from the perspective of why its principles and concepts are unsatisfactory, stressing that copyright's approach to defining the work and subject matter categorization is inadequate. However, this only provides a partial explanation, and to fully appreciate the issues with copyright's approach it is necessary to have a better understanding of the 'subjects' which copyright is attempting to circumscribe, and subject matter which copyright is trying to accommodate its works and interactive creations within. To that end, this chapter will discuss subject specific critiques which draw on cultural scholarship to demonstrate the limitations of copyright's approach to defining subject matter. And although these critiques do not specifically address the unique formal qualities of interactive creations, these theories are helpful for several reasons. For instance, they demonstrate why certain subjects resist accommodation by copyright by outlining characteristics which make them difficult to fit within copyright's models – characteristics inherent to certain subjects or works such as time for music, or space for installation art. They also demonstrate the shortcomings in how copyright has defined or accommodated certain subjects, and provide critical analysis of why certain models or traditions which copyright has borrowed and adapted are flawed or limited. As Teilmann contends:

"Whether inadvertently or not legal analysis draws upon literary and aesthetic criticism. Concepts such as plot, composition, character, metaphor, theme, realism and motif are all frequently employed. There is nothing to suggest that these concepts are applied as part of a general endorsement of a specific literary or aesthetic theory. But each application of a term will inevitably situate the analysis in a particular tradition."[545]"

Accordingly, criticisms which rely on cultural discourse are helpful because they can provide a fuller understanding of the cultural subject which is at odds with copyright's

[545] Teilmann-Lock (n 414).

object-subject that is the work. Which in turn helps demonstrate where copyright has been incomplete in its definition of the subject and shows why the nature of certain subjects are so difficult to accommodate within copyright object-oriented framework. Moreover, the discussions which assess where copyright has imported analysis from creative scholarship are helpful in critiquing copyrights analytical approach, since the shortcomings of those theories outlined in their cultural discourse, are likely to extend to copyright. And similarly, because those discussions can or may identify theories which may be better suited than those currently relied on by copyright for constructing its subject. Invariably, a complete discussion of all the subject specific concerns is beyond the remit of this thesis, as such, it will prioritize and focus on those which can inform why interactive creations – as multimedia creations which straddle various categories, and as creations which arguably share the certain characteristics which cause issues for copyright, struggle to be accommodated within copyright's framework. In particular, discussions concerning the nature of literary, artistic, musical and filmic works will be considered.

4.2 – Literary Works

It is worth noting that in assessing the problems facing copyright's various categories of protection, many of the subsequent criticisms focus on the disconnect between copyright's object-subject and the subject as understood by the scholarship in its cultural counterpart. However, the disconnect between those categories and their cultural discourse are in a sense more easily drawn than it is for literary works. This is because the category of literary works in copyright is fundamentally too broad, and accordingly encompasses far too many potential creations to say that there is an obvious corresponding discipline as such. Alternatively put, because copyright does not protect literature but 'writings', to say that literary theory correlates to literary works is misleading, and whilst literary theory can and does offer helpful insights, it is argued that the fundamental problem for literary works lies not in a disconnect with literary theory – although there is one, but more in its approach to defining and understanding literary works as written works.

The problem then for literary copyright begins with the conditions for categorization, specifically the category's lack of precision. Since as formal qualifications, writing and

notation provide little normative guidance for determining what can or cannot be classified as a 'literary work'. Which by extension causes significant difficulties with appropriately distinguishing between literary works and other creative subject matter which may include qualities which fit within this broad remit of writing and notation. For instance, Yin argues that there are inherent difficulties in applying boundaries which are concerned with formal qualities alongside copyright's commitment to an abstract model of the work. Citing *Abraham Moon*[546] as an example, Yin notes that whilst more generally the case accords with the protection of works as dematerialised subjects, "if one were to take the statutory category of artistic works seriously, the conclusion that a set of instructions expressed in the form of words, letters and numbers might be regarded as a graphic work is a startling one"[547]. Especially since from the perspective of artistic works, such a decision is difficult to reconcile with the formal qualities prescribed for that category. And as Yin also contends, even besides cases like *Abraham Moon*, the manner in which copyright protects writings – loosely as text or as notation has always created difficulties for copyright and destabilised its understanding of works and category boundaries. Commenting that:

"To date, it remains unclear whether maps would be more appropriately classified as literary works (being a compilation of geographical information) or as artistic works (being visual representations of geographical information…In the digital environment, these boundaries have been rendered even more porous: after all, a digital file embodying a protected work is simultaneously a record of that work in the form of binary code and a set of textual instructions telling a computer how that work is to be displayed."[548]

This absence of cohesiveness and unclear taxonomy for literary works not only causes instabilities for the separation of categories, and introduces difficulties with classifying multimedium works, but it also causes a dissonance between the various works which fall within its remit. This is because the problem with such loose formal restrictions for the category is that it enables the protection of several kinds of works which may not share the same substantive qualities. Which in turn leads to difficulties in trying to

[546] *Abraham Moon & Sons v Thornber* [2012] EWPCC 37.
[547] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).
[548] ibid.

reconcile the various kinds of works included by the category's form with the overarching substantive definition which copyright generally ascribes to literary works. Copyright's expectation that "[f]or an expression to be literary for copyright purposes it must possess an independent meaning or significance beyond that inherent in its immediate context"[549] creates difficulties for works where meaning and significance beyond the literal words are thin. Or for works where meaning and significance are difficult to reconcile with assumptions that copyright makes about the kinds of 'meanings' or in copyright terms 'expressions' which underscore the literary work. As has been discussed previously, copyright has tended to ascribe authorial attributes when defining a works originality and in constructing what for copyright constitutes the valuable expressive qualities. And it has also been stressed throughout that not all works readily fit that authorship model, and certainly not to the extent that it embodies more romantic connotations of expression and creation. For instance, Pila and Christie comment on the difficulties in reconciling the protection of compilations and tables with the connotations of literary authorship, originality and expression which underscore literary works. Where their protection as more commercial endeavours or as valuable creations prevents literary concepts, which carry more conventional literary notions of creative and originally authorial expression from functioning coherently.[550] This sentiment is likewise echoed by Denicola who contends that:

"Nonfiction literary works pose a unique challenge. They heighten concern for access and dissemination, yet they underscore the necessity of preserving incentive. Copyright law has generally failed to acknowledge the distinctive nature of such works, relying instead on compromises struck in foreign contexts. The result has been un-principled distinctions, untested assertions, and a general failure to relate the scope of protection to the effort of production."[551]

Arguing that the reluctance to properly assess and protect the value in facts or compilations means that indirect protection by reference to qualities which are available through copyright, albeit thinly, is the only recourse short of

[549] Justine Pila and A Christie, 'The Literary Work within Copyright Law: An Analysis of Its Present and Future Status' [1999] LingRN: Pragmatics.
[550] ibid.
[551] Robert C Denicola, 'Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works' (1981) 81 Columbia Law Review 516.

reconceptualising the subject which copyright protects. Thus the issues for Denicola, Pila and Christie can loosely be summarised as concerning the coexistence of literary – in a conventional 'literature' sense – works which carries specific meanings and assumptions; and written works to which copyright has ascribed a diffuse definition, and which connote various substantive and conceptual properties which may otherwise fail to correlate to "the cultural burden and linguistic constraints inherent in the notions of literature, authorship and originality"[552] which permeate if not define the former. And whilst this is not a uniquely literary problem, it is worth reiterating. Since it is arguable that because copyright's connection to romantic or conventional author paradigms are products of conventional literary discourse, the availability to break free from those literary expectations may be more difficult for works that are treated within or overlap with the literary category. This problem becomes especially pronounced when considering that copyright seems to have sought recourse to literary concepts and literary analysis where convenient. In order to clothe and make sense the concepts which it has loosely imported from traditional literary analysis. Its willingness to consider metaphor, plot, theme demonstrate that literary conventions have been assimilated into its analysis to some degree.

As such, a further problem with copyright's diluted literary category is the emphasis on narrative or narratological principles which underscores copyright's approach to assessing literary works. Which similarly causes confusion or difficulties when assessing written works and their qualities where they are not strictly literary works, or 'literature' in a conventionally understood sense. As Teilmann contends, within copyright there is a propensity to apply a narrative and modernist approach to constructing and evaluating literary works:

"Courts, as in Ravenscroft, adopt methods of analysis that focus on meaning, theme, narration, etc. to perform the test of 'substantial taking.' This is a conventional method of twentieth century modernism in literary studies…More specifically…in…Ravenscroft the judge mastered a form of narrative analysis that served to emphasize the similarity of events, sequence and theme of the two works.

[552] Pila and Christie (n 553).

And this analytical method was the foundation for his conclusion that there was infringement."[553]

This narratological approach was likewise identified earlier in relation to software. Where the absence of appropriate vocabulary to define and assess software, led the claimants to try analogize the 'business logic' of the program to a plot, in an attempt to make amenable to copyright the protected quality or subject which arguably defines much software.[554] And Burk even argues that this narrative primacy goes beyond literary works, contending that:

"Although not all copyrighted works lend themselves to characterization as narrative works, narrative works clearly holds the paradigm position in copyright doctrine. For example, the famous "levels of abstraction" test developed by Judge Learned Hand, used to distinguish idea from expression, was developed in the context of a narrative dramatic work, where it was employed to separate particular text from general plot development. It is far less clear how such a test works in the case of something like a map, or even a graphic work, which lack an obvious linear plot line, dialogue, and characters."[555]

Indeed, as will be reiterated throughout this chapter, the closeness of ideas and expressions for certain subjects presents far more challenges than they might in literary works. At least compared to the extent that the ideas for literary works may be distinguished from their expressive counterparts as set out by Judge Learned Hand. A literary theme, or overarching plot is ostensibly more readily abstracted to and from words and language than perhaps a melody or sound might be for music. Moreover, the conventions and expectations of narrative and narrative structures likewise are inapt in the context of non-narrative or non-traditionally narrative works, which may seek to create meaning or may 'express' in ways which are difficult to trace back to literary ideas.

[553] Teilmann-Lock (n 414).
[554] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).
[555] Dan L Burk, 'Copyright and Hypernarrative' (2019) 31 Law & Literature 1.

For instance, the emphasis on narrative and literary qualities in *Gaiman v. McFarlane*[556] has been subject to criticism for overemphasizing the expressiveness of what otherwise might in strictly literary works be treated as ideas, and for dismissing or undervaluing the contribution of the comic artist. Tushnet complaining that the courts willingness to find joint authorship for the contribution of names and basic backstories was in effect a willingness to recognize that stock character descriptions as equally valuable as the visual drawings, despite essentially being ideas. Crucially downplaying and undervaluing the importance of the visual and artistic expressions underscoring the work, and indeed underscoring the medium as well. A lamentable outcome since as Tushnet points out, "Copyright has often favored the photographer or visual artist against later visual imitators, but in comic art, the visual is the source of protection, and yet somehow the writer is still on top".[557]

This emphasis on literary narratives is also especially problematic for interactive creations, as Burk also points out, applying "the paradigm to works such as computer object code, which may not even be perceived by human audiences"[558] is questionable and rife with difficulties. Especially if the narrative is understood as the manner and approach in which meaning is conveyed to the audience.[559] Which for the purposes of describing object code may not be entirely appropriate. And in the context of 'cybernetic narratives', these literary assumptions led to an ill-fitting characterization of the MAP files in in *Micro Star v. FormGen,*[560] where the files were treated as derivative works which established a narrative. Which in turn meant that the unauthorised copying of those files infringed in the 'story'. As Burk contends:

"Kozinski's opinion in *Micro Star* is striking for a variety of features: not only his characterization of computer code as a type of storytelling, and his explicit equation of a derivative work with the instructions for preparing a derivative work, but also his comparison of written and graphic works. Kozinski draws an explicit comparison

[556] *Gaiman v McFarlane* (2004) 360 F3d 644 (7th Cir).
[557] Rebecca Tushnet, 'Worth a Thousand Words: The Images of Copyright' (2012) 125 Harvard Law Review 683.
[558] Burk, 'Copyright and Hypernarrative' (n 559).
[559] Tushnet (n 561).
[560] *Micro Star v FormGen* (1998) 154 f3d 1107 (9th Cir).

between his coded software narratives and other texts, asserting that "A book about *Duke Nukem* would infringe for the same reason, even if it contained no pictures.""[561]

Burk essentially concludes that the issue for this case lay in the absence of an appropriate vocabulary for properly assessing works, and lacks tools to properly map or distinguish creative features in one work from another where there may be overlap or analogous expression. Like Yin the issue for Burk culminates in a need for a better lexicon and a more relevant understanding of the subject in question. And to do so in a way distinct from copyright's limited approach which is closely bound with assumptions and associations of the works as a literary and textual artefact – whether that entails reconceptualising concepts in copyright to better reflect developments in narrative theories such as hypernarratives – a common narrative approach found in interactive creations, or more generally with for instance the introduction of other conceptual tools which can define the subject such as visual semiotics, which may similarly operate in interactive creations to shape the narrative, meaning or similar expressions therein. A full discussion on the specific and distinct approaches to narration that takes place in many interactive creations will be fully discussed in the following chapter, however for it now it suffices to note that copyright's literary narrative and the assumptions it makes are limited and potentially confusing when applied beyond conventional literary works and that includes interactive creations which also straddle the literary works category. As such, for literary works its formal qualities are frequently confused with the substantive, where the analysis of the subject is uniformly applied to literary works regardless of the potential differences in form and substance which may exist between the works. This is predominantly a product of copyright's broad recognition of formal qualities for literary works – text, writing, notation in whatever form, with its assumption that the substantive analysis for some works – specifically literature and writings which are amenable or akin to literature, is capable of accurately and adequately describing the subject for all literary works.

[561] Burk, 'Copyright and Hypernarrative' (n 559).

4.3 – Artistic works

In the earlier discussion of the work concept, it was suggested that for artistic works, copyright has placed a greater emphasis on classification and formal characteristics to make sense of the work. This it will be argued has had implications for how copyright has sought to define the subject of artistic creations, which has led to copyright being unable to accommodate certain kinds of artistic works, and disconnected from interpretations of the 'subject' of art as understood by art theory. To clarify, this is not to say that art in copyright is disconnected from art in theory, but rather, that copyright's subject only partially reflects the subject of art understood by its discipline. Specifically, it is contended that art understood in copyright best reflects art theories which place an emphasis on physical and taxonomic qualities.

For instance, Pila contends that art in copyright can be understood as corresponding to the formalist theory of art.[562] Arguing that "[a]ccording to that theory, art is an aesthetic object that exists and is perceived in virtue of its form…that in order to appreciate art (as art) one need only to perceive its sensory surface and other non-relational properties intrinsic to the object."[563] As such, Pila suggests that by focusing on qualities such as "curving or angular lines, color contrasts, placing of masses"[564] copyright can construct the work through the perception of its object and its intrinsically identifiable qualities. Barron reaches a similar conclusion, and like Pila, also contends that copyright's approach to artistic works relies on references to "the nature of their material carriers; the way these are made; the system of signification deployed within them; and the way they are perceived by those who experience them".[565] Developing on this, Barron claims that: "the law's mode of conceptualising artistic works in terms of what art theorists would call their material and perceptual ''media'' has striking parallels with a certain tendency in art theory itself…the particularising trend in aesthetic thought."[566] A trend which follows the tradition of emphasizing perceptual or visual qualities, classification, and the manner on which these qualities were created and employed. Of the various examples of theories which fall within this approach concerned with formal

[562] Pila, 'Copyright and Its Categories of Original Works' (n 71).
[563] ibid.
[564] ibid.
[565] Barron, 'Copyright Law and the Claims of Art.' (n 70).
[566] ibid.

ontology, Greensburg Modernism is particularly noteworthy. A theory which Barron suggests exemplifies the approach adopted by copyright because it emphasizes the formal and physical character of the artistic object, whilst also mirroring copyrights conception of the work as autonomous and stable. Arguing that:

"what Modernist art theory shares with copyright law is an assumption that all the arts can be confined within a closed list of mutually exclusive expressive genres, each with an essential character; and that norms for each of these arts (whether aesthetic or proprietary) can somehow be derived from the self-contained technical conditions and demands of their production. What is common to both, in other words, is an attentiveness to the specific nature of each artistic medium—the methods, materials and means deployed in the production of each art—as a basis for judgements about the status of particular instances of each art."[567]

Moreover, it is not merely in its approach to classification and definition, but the same applies to the principles copyright has developed too. To the extent that the properties of the object are conceived and limited by reference to that object, the conventions or principles developed by copyright will necessarily be limited in that same way. As such for both copyright and Modernist art, there is the assumption that the subject of art is entirely determined by the discernible and innate qualities of the art-object, which although might be said to provide a degree of objectivity and certainty in constructing the boundaries of the intangible subject, especially for the purposes of an abstraction exercise; creates limitations for assessing the subject where the object is displaced, or where the subject is not readily traced to the object or any object. And it may equally mean that species of artistic work fall entirely outside the remit of protection altogether. Moreover, assuming that copyright embodies a Modernist or formal or taxonomic approach to art, it follows that any criticisms of that approach in the artistic discipline may also apply to copyright's method of construction equally. And if art is created in opposition to Modernist art, it is reasonable to assume that those art works will likewise be opposed to copyright's framework.

[567] ibid.

Conceptual art, readymades, postmodern and antimodernist art all exemplify as artistic practices and theories which set themselves, sometimes deliberately against the Modernist approach and by extension copyright's framework and principles. For example, readymades, conceptual art and performance present significant challenges for accommodation under copyright and are difficult to conceive within the paradigm of copyrights separation of idea and expression. This is because the subject of these art practices are neither constituted nor strictly linked to the object or artefact as such. "Conceptual art...liquidates the object entirely; and performance art…yields an event unfolding in time rather than a spatially delimited artefact."[568] Moreover, as Fet contends:

"the central problem posed by works of conceptual art…is that their main artistic value is found outside of the works themselves. The connection between the final product, whether a telegram or an erased drawing, and the sequence of events imbued with the artistic energy that leads to that product is so loose that the main "creative act" takes place outside of the fixed expression, in the area of the artist's behavior."[569]

Crucially then for conceptual art there is no object-subject per se which can be understood as the work, but simply a subject. The object, if there is one, is tangential at best. For conceptual art, the actions and behaviour of the artist is more important, and for conceptual artists "art 'lives' through influencing other art, not by existing as the physical residue of an artist's ideas."[570] The subject of conceptual art thus exists through actions, performance, or even ideas more so than the material artefact. And even for readymades where the object may be said to still have some relevance, it is often the juxtaposition or context which gives meaning and value, not the object itself. But copyright cannot find protection in juxtaposition, copyrights subject and work is meant to be self-sufficient and defined by reference to the object alone. As Fet argues, the situation is well described by *Carol Barnhart Inc. v. Economy Cover Corp.*: "Almost any utilitarian article may be viewed by some separately as art, depending on how it is

[568] ibid.
[569] Natalie Fet, 'THE IDEA/EXPRESSION DICHOTOMY: COPYRIGHT LAW IN SEARCH OF A THEORY OF ART' <https://www.academia.edu/5546262/THE_IDEA_EXPRESSION_DICHOTOMY_COPYRIGHT_LAW_IN_SEARCH_OF_A_THEORY_OF_ART> accessed 18 August 2021.
[570] Cohen (n 640) citing Gregory Battcock and Joseph Kosuth, 'Art after Philosophy', *Idea art: a critical anthology* (1st ed., Dutton 1973).

displayed (e.g., a can of Campbell Soup or a pair of ornate scissors affixed to the wall of a museum of modern art). But it is the object, not the form of display, for which copyright protection is sought."[571] And the reason that copyright takes this approach can in one sense be understood as the product of the law's similarities with Greenbergian Modernism, and as Barron contends:

"The idea/expression dichotomy recalls Greenberg's separation of idea from form, because copyright law cannot recognise ideas, as opposed to the visual forms in which they reside, as protected 'artistic works'. The definition of the 'artistic work' in terms of what is visually significant, and the strict demarcation of the artistic from the literary (as well as the dramatic and the musical), calls to mind Greenberg's insistence that 'visual art should confine itself exclusively to what is given in visual experience, and make no reference to anything given in any other order of experience.' The tendency to confuse, or at least oscillate between, the visual and the physical in defining the essence of the genres selected out for privileged attention is common to both copyright law and Modernist theory and criticism"[572]

This commitment to form and object is what Barron suggests is responsible for why both Modernism and copyright law struggle with certain contemporary art genres, or genres which seek to reject form and structure or relocate it to ideas or performance. And why conversely, copyright has tended to privilege other genres or 'gestures of art' which do fall within such an approach, or at least can be made amenable to it. Indeed, this emphasis on objecthood perhaps demonstrates why copyright has protected objects such as a frisbee or car mats which may be said to have little creativity,[573] at least as art qua objects, whilst other creative endeavours have fallen outside copyrights remit owing to the absence of an object which is readily accommodated by copyrights assumptions about art objects and their formal qualities.

Indeed, in the same way that conceptual art can be said to challenge the dichotomy, it can be said to challenge the conventions and expectations about art objects and the importance of those objects, form or materiality for modernism and copyright. "In

[571] *Carol Barnhart Inc v Economy Cover Corp* (1985) 773 F2d 411 (2d Cir).
[572] Barron, 'Copyright Law and the Claims of Art.' (n 70).
[573] ibid.

emphasising the 'idea', conceptual art also challenged the disciplinary categories, which depend largely on form, and related ways of perception and evaluation".[574] Recall the earlier discussion on LeWitt wall paintings and the delegation as a challenge to assumptions of authorship and authorial behavior. The same or similar instances of delegation[575] can equally be understood confronting presumptions about the art-object as the subject of art. As Biron and Bently argue:

"such works are frequently interrogating important questions as to the relationship between art and language (where meaning is generated in ideas or form), the place and the role of the 'artist' (and the artist's 'personal touch'), the significance of materiality and the place of the object in processes of commodification"[576]

Understood in this sense, the act of delegation is not just an erasure of authorship conventions, but also functions to emphasize the immateriality of the work.[577] It mandates that the evaluation of the work must entail reference to the context and conditions of its creations, at least to appreciate its artist meaning or subject. Which as has been reiterated, falls outside the lens of Modernism and the definitions and principles with which copyright constructs its object-subject. Copyrights object-subject not only mandates that the object be located, but that the construction and understanding of the subject be located within the object itself. And related to this, is the approach of postmodernist and antimodernist art which similarly confronts the conventions and expectations of Modernism by relocating the media in which the art or art subject is said to be found. By creating art through "performance, conceptual propositions, installations, film, video and hybrids of these…the categories of painting, sculpture, and the notion of an autonomous aesthetic have been attacked or deconstructed."[578] Clearly the move away from an object itself – to performance or installation for instance, destabilizes both the object oriented approach taken by copyright and Modernist theory, but even by expanding and mixing the media, the conventions which traditionally were drawn in relation to the forms associated with an

[574] Bently and Biron (n 427).
[575] See ibid discussing Ordine e Disordine (1973).
[576] Bently and Biron (n 427).
[577] ibid citing Charles Green, *The Third Hand: Collaboration in Art from Conceptualism to Postmodernism* (University of Minnesota Press 2001).
[578] Barron, 'Copyright Law and the Claims of Art.' (n 70).

art object may similarly demand re-evaluation. For instance, the construction and conventions of art as a visual subject is affronted by conceptual art which deliberately seek to contravene those expectations. "Joseph Kosuth's word paintings, for example, ''asserted a strict identity between verbal concept and artistic form'', offering written documentation to the ''viewer'' instead of purely visual experiences." As such, the reliance on written text enables the semiotics and meaning to become blurred and mingled with those for literary or textual creations, challenging both the art qua art form assumption which permeates modernist art, as well as copyrights supposedly distinct, category and form specific boundaries. Indeed as was demonstrated in relation to textual works which straddle artistic works, copyright is not well equipped to discern and describe the subject for dual or multimedium creations. Kosuth's word paintings falls within:

"a broader tendency towards the dematerialisation of the art object: the production of art that yielded no object; or in which process, context-dependence, chance or randomness were prioritised over form, self-sufficiency, authorial control or intentionality. The genres encompassed by this tendency, in turn, have included Land Art (whose ''works'' are completed by the forces of nature, the landscape or the built environment); Body Art (where the body and/or its products are used as material for art-making); Installation Art (where the art is defined primarily by its spatial location and context rather than by the materials that constitute it); Performance Art; and Video Art"[579]

And much in the same way that copyright has been reluctant to find expression in context or ideas, the same can be said for process, or for works which in their displacement of object seek to relocate the subject to something both intangible and ephemeral. For example, conceptual art which is temporal or spatially contingent – such as time sensitive art installations or and interactive artworks, clearly presents a plethora of difficulties for Modernists and copyright. With the fundamental disconnect emerging from Modernists and copyright's insistence on locating meeting within the object. For Modernists "[t]he concepts of quality and value and…the concept of art

[579] ibid.

itself are meaningful, or wholly meaningful, only within the individual arts. [And] [w]hat lies between the arts is theatre".[580] As Barron explains through Fried:

"Modernist sensibility finds theatricality 'intolerable,' mainly because of this incapacity or refusal to be bounded by the divisions between the arts; but partly also because a theatrical work exists for, and is incomplete without, an audience, and because the sense that it addresses is above all else the sense of time."[581]

On a basic level, the importance of the object, of artistic category and convention, or of the artist as author or arbiter are all plainly challenged by these conceptual art practices which seek to locate the subject away from the object, or by defining in relation to environment, time and audience. Moreover, by turning art into performance and spectacle, there are further complications which arise in relation to fixation, both in a copyright sense and for Modernist treatment of art as concrete artefacts. For ephemeral creations, or for creations which do not readily "yield some tangible thing, or some record of an event",[582] it is difficult to identify what would constitute the work in law, in the same way that it defies definition under Modernist rhetoric. Equally, owing to the emphasis on specific categories and classification, there are clear restrictions on the available protection even when the performance may be capable of being fixed in some material form. This is well demonstrated by *Creation Records*,[583] and is equally evidenced by the various precedents which have sought to limit the kinds of artefacts which copyright protect.[584] A related concern is the disconnect which does emerge in instances that the art is fixed into some form for the purposes of copyright. If the subject is said to lie in performance and is contingent to an extent on audience or time, then by nature the fixation can only present a partial or limited depiction of the art subject. The nature of conceptual art which is a product of time-sensitive factors, such

[580] ibid citing Gregory Battcock and Michael Fried, 'Art and Objecthood', *Minimal art: a critical anthology* (Dutton 1968).
[581] ibid.
[582] Barron, 'Copyright Law and the Claims of Art.' (n 70).
[583] *Creation Records Limited and Others v News Group Newspapers Limited* (n 155).
[584] As Barron explains: "the materialisation of the work cannot be a human being as such; it must arguably be reasonably permanent; and it cannot be liable to decay, disappearance or continuous change." (Citing *Merchandising Corporation of America Inc v. Harpbond Ltd* [1983] F.S.R. 32, *& S Davis (Holdings) Ltd v. Wright Health Group Ltd* [1988] R.P.C. 403; *Creation Records v. News Group Newspapers* [1997] E.M.L.R. 444. *Cf. Metix Ltd v. GH Maughan Plastics Ltd* [1997] F.S.R. 718, *Komesaroff v. Mickle* [1988] R.P.C. 204.

as deteriorating conceptual art, is particularly helpful at demonstrating this. For example, Andy Goldsworthy ice sculptures demonstrate some of the critical challenges which can arise in considering how the work should be constructed. As Said asks:

"At what point is the work fixed? Is it when he stops composing the scene, and shifts to documenting/photographing it? The work's fragility, its vulnerability to decay or undoing, is what amplifies the beauty of the work. Indeed, it is the very point of his exquisite, careful craftsmanship."[585]

Because the nature of the artistic subject is so intrinsically tied to its ephemerality and to time, it becomes difficult to prescribe a fixation which does not seem arbitrary. Or without otherwise becoming a compromise at the cost of the integrity of the artistic subject. And regardless of whether there may be other competing policy decisions which might otherwise be said to disqualify copyright in artworks similar to Goldsworthy's ice sculptures,[586] the critical challenge lies in the temporal nature which characterizes the artistic creation. An approach preoccupied with protecting objects, and intangibles which are strictly defined in relation to that object (as it is for copyright and Modernism), cannot be said to accurately represent a subject that is created not in but through time. Time is fluid and defies fixation, and the difficulties of temporal creations will be revisited again in the following section concerning musical works, especially because like both temporal art and music, interactive creations are time and performance sensitive.

What the preceding discussions have demonstrated then is that copyright's framework conceived of as a reflection of formalist or specifically Modernist theory is limited in its ability to conceive of the cultural creations which stand in opposition to those theoretical approaches to creating art. In particular, the emphasis on objects and meaning as fixed and located within those objects means that artistic works which seek to create a meaning and subject beyond the object are either neglected, or left to be protected through compromises or analogies which do not accurately represent their

[585] Zahr Said, 'Copyright's Illogical Exclusion of Conceptual Art' (2016) 39 Colum. J.L & Arts 335.
[586] For a full discussion of natural, environmental, and kinetic art see Jani McCutcheon, 'Natural Causes: When Author Meets Nature in Copyright Law and Art. Some Observations Inspired by Kelley v. Chicago Park District' (2018) 86 U. Cin. L. Rev 707; Mccutcheon (n 78).

artistic subject matter. Especially not as understood by the theoretical discourse which underpin their creation. As such, what Modernism and copyright's conception of art share is the absence of a vocabulary to properly accommodate the creations which have an ontology that is not dictated by object and form. A conclusion which echoes the sentiments of Yin and Burk in relation to text, literary works, and interactive creations.

It is arguable then that by seeking to expand copyright's lexicon to include contemporary art theories, it may at least have a better prima facie understanding of conceptual or antimodernist art, and could even rely subject-matter theories to reconceptualise certain copyright principles and tools. For example, it was contended that the dichotomy's emphasis on expression as abstracted from the material artifact was of limited use as a conceptual tool for artworks which create value and meaning distinct from the object. As such, an approach which seeks to define the subject of art away from the object could feasibly fix the inability of the copyrights dichotomy to accommodate and assess conceptual art creations. To that end, it is helpful to briefly consider Fet's suggestion that semiotic theory may work as a more effective alternative to the dichotomy and similarly Learned Hand's abstraction exercise.[587] Fet explains that semiotics is a "method of introducing and analyzing information, where a message is created and understood through the use of sign". Where "[t]he crux of the semiotic approach to art lies in the exploitation of the difference between the nature of the signifier and that of the signified."[588] Expanding on this they suggest that:

"This inherent difference between the elements of the expression plane and the content plane creates an artistic tension and forms the "virtual space" where the meaning of the work of art resides. Viewed from this analytical standpoint, every work of art becomes a constructed object. In most cases, it can be analyzed as a multi-level semiotic structure. One of such analytical models, developed in the works of A. Zholkovsky and Yu. Scheglov, describes the final text as gradually "explicated" through a series of transformations from a "deeply unexpressive initial theme."[589]

[587] Fet (n 573).
[588] ibid.
[589] ibid.

This Fet argues takes a similar approach to Learned Hand's depiction of literary text as a process of abstraction, however argues that unlike the abstraction exercise, the process of distinction between signifier and signified is more clearly drawn than in idea and expression. Not least because of the inherent inseparability of idea and expression, and the inherent vagueness of idea and expression as theoretical concepts. Whereas in contrast to signifiers and signified which Fet argues has a more definitive and tractable hierarchy. To demonstrate this, Fet applies a semiotic model to *Mannion v. Coors Brewing Co*[590], where the Judge had found applying the dichotomy proved especially unhelpful. Fet proceeds to argue that:

"What looks to Judge Kaplan as three equally possible (and therefore confusing) choices, can be viewed as projections of the different stages of the Zholkovsky/Scheglov model. Thus, statement No. 3 above, "a desperation produced by urban professional life" can be described as the most generally stated theme of the plaintiff's photograph or, in Sarony terms, the author's "original mental conception." That theme then gets some layers of "flesh" grafted onto it through several levels of explications (in Zholkovsky-Eisenstein terms) and, at some point along this continuum, the theme becomes sufficiently fleshed out to be considered, from that point on, "expression" rather than an "idea.""[591]

This cursory reference to Fet's suggestion that semiotics provides a helpful alternative to the dichotomy is not to make the argument that art semiotics are the correct theoretical basis for re-evaluating copyright protected subject. Rather, it is to demonstrate how reconceptualising copyright assumptions through subject specific analysis can not only work towards alleviating the disconnect between copyright's conception of the subject against the cultural and discursive understanding, but that it can potentially provide meaningful tools with which to asses and resolve copyright conflicts such as infringement.

[590] *Mannion v Coors Brewing Co* (2005) 377 FSupp2d 444.
[591] Fet (n 573).

4.4 – Musical works

There are several parallels between the problems with musical copyright and those discussed in relation to artistic copyright. For instance, musical copyright has also privileged certain objects to situate its analysis in and has similarly emphasised formal conventions which correspond to those objects in order to define its musical subject. And like with art, the approach taken by copyright has led to criticisms that copyright has a reductive and impoverished view of the subject of music as understood in musical theory more broadly. For example, Rahmatian has suggested that "copyright law has no genuine understanding of the nature of music as an art form; it attaches to certain aspects of music which it declares as normatively relevant and thus ascertains building blocks of the legal protection system".[592] What then are the normatively relevant aspects which are important for copyright music?

For the most part, they can be described as the qualities which attach to and can be recognized within the musical score and sound recording. This emphasis on score and sound recording has led some academics to draw parallels between aesthetic, idealist[593] and in particular, musicology[594] in discussing the shortcomings of copyright's musical work. Similar to copyright, musicology "operates with a conception of the musical artefact as a bounded expressive form originating in the compositional efforts of some individual: a fixed, reified work of authorship."[595] As such, musicology both places great importance on musical elements which are readily notated and fixed in a score, and by extension develops a vocabulary that prioritize musical elements such as melody, harmony and "certain elements of musical form (motive, development, episode, and so on)"[596]. Essentially, it predominantly is concerned with compositional elements. Conversely, where the musical elements are less amenable to notation, or are not traditionally seen as compositional as such, they become difficult to accommodate

[592] Andreas Rahmatian, 'The Elements of Music Relevant for Copyright Protection' in Andreas Rahmatian (ed), *Concepts of Music and Copyright: How Music Perceives Itself and How Copyright Perceives Music* (Edward Elgar 2015).
[593] ibid.
[594] See Anne Barron, 'Introduction: Harmony or Dissonance? Copyright Concepts and Musical Practice' (2006) 15 Social & Legal Studies 25 discussing Lydia Goehr, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Clarendon Press ; Oxford University Press 1992); Jason Toynbee, 'Copyright, the Work and Phonographic Orality in Music' (2006) 15 Social & Legal Studies.
[595] Barron, 'Introduction' (n 598).
[596] ibid.

through a musicological lens. For instance, "rhythm, pitch nuance…as well as vocal inflection and timbre – which are highly significant to popular music".[597] Moreover:

"Since all these parameters are of great importance in popular music, musicology's notation-centricity in effect filters out important aspects of the pop music 'text' as non- or extra-musical. Middleton points out that it also reifies what remains in the wake of this filtration process: 'the score comes to be seen as "the music"', and notation-centric training induces reductive listening practices through which 'the' music is identified in relation to an actual or imagined score."[598]

The importance that musicology ascribes to score and composition and its inability to fully accommodate popular music and performance driven music is likewise observable in copyrights approach to protecting music. And although some contest the extent and degree to which copyright can be said to directly correlate to musicology, they do nonetheless acknowledge that there is overlap between the approach in musicology and copyright, and that the two share several limitations and biases.[599] Indeed consider for instance *Hadley v Kemp*,[600] where in deciding whether contributions made by band members during a jamming session gave rise to co-authorship, the judge found that the contributions were not relevant or sufficient. Specifically, the judge concluded that because there was no compositional contribution made by the band members, the band members could not be considered co-authors. Moreover, in doing so, the judge found that whilst there was no physical notation per se, the song was fixed in the "musical consciousness"[601] of Kemp. Stressing compositional and structural elements such as melody and chord structure had been completed, and thus so too was the song. And in doing so, treated the performance and interpretation by members as irrelevant to the musical subject. As such, Barron contends that:

"Here Park J. unequivocally, if unwittingly, accepts an idealized image of the musical work as a self-contained and stable product of its creator's 'musical consciousness': a transcendent object that can in principle be abstracted from, and identified as

[597] ibid.
[598] ibid; Richard Middleton, *Studying Popular Music* (Open University Press 1990).
[599] Barron, 'Introduction' (n 598); Rahmatian (n 596).
[600] *Hadley v Kemp* [1999] EMLR 589.
[601] ibid.

ontologically prior to, any of its particular phenomenal manifestations in performance"[602]

Moreover, because the judge dismissed the argument that the final recorded version as performed by the band sounded different to the version which Kemp presented and presumably had conceived of in his "musical consciousness",[603] Barron suggests that "despite the fact that it sounded different: the sound of a musical composition, it would appear, is not a component of the music which is protected by law."[604] This is not an isolated finding either, and notwithstanding copyright's ostensible commitment to protecting sound, the case law frequently reveals a preference towards textual and notated constructions of the music work. As Yin argues:

"Despite widespread acceptance of the principle that the identity of a musical work is not located in the notation in which it is embodied, but rather in the totality of sounds produced when it is played, it remains remarkably common for courts to describe musical works as if they were set out in the form of a notated score. Even in Sawkins v Hyperion, which is currently the highest authority for the proposition that musical copyright protects the sounds of music rather than the notes, there was virtually no attempt by either the first instance judge or the Court of Appeal to describe the aural effect of the alterations and additions made by the claimant, or to explain the difference they made to the sound of the music as represented in Lalande's original scores... they were described almost entirely in terms of the alterations they made to Lalande's original scores, with the focus being on the number of notes corrected".[605]

As such, it is clear then that copyright and musicology at least share a predisposition towards score and notation, and against performance and the interpretations of a score. And in the same way that critics of musicology denounce it for failing to comprehensively depict music, it can be argued that copyright similarly fails to properly appreciate the subject of music. Especially in relation to certain genres of music such as pop, jazz and rap which are troublesome for copyright owing to their

[602] Barron, 'Introduction' (n 598).
[603] *Hadley v Kemp* (n 604).
[604] Barron, 'Introduction' (n 598).
[605] Lee, 'The Persistence of the Text: The Concept of the Work in Copyright Law - Part 2' (n 78).

conventions and practices which emphasize sound and performance, do not accord well with a strictly or primarily notation-oriented approach. As Rahmatian argues:

"Music is a living, performative art. It exists in, and through, performance. The score, if there is any, is not the music…Musical pieces are not only the work of their composers; it is the performance and the opportunity to listen to the performance that renders the piece into a musical work…The text of the score is certainly the starting point for any performance. But the score can only be seen as an incomplete and imperfect representation of the music, a building instruction for the performance. Normative as the score is as the expression of the composer's intention, the symbols are only a limited aid to the reconstitution of the intended musical sound… Music always happens between produced sound and listening ear or mind, that is, psychologically and sociologically, between player and listener [606]

Accordingly, the score is but one element in the construction of the music, perhaps an important one, but a fragment, nonetheless. As such, the extent to which the score is defined as correlating to or synonymous with the music is where the conception of music can become unduly limited. To reiterate, the score expresses musical composition, not music as such. And whilst it is the expression of the composer, music is a fundamentally performative art and to treat the composer as the total arbiter of meaning for music is reductive. To reify music through the score may be convenient for copyright, but overlooks the fact that music is sound, and that sound is produced by factors alongside or distinct from the score itself. There is not a linear relationship between the subject of music – its sound, and the object-subject – the score. In the process of creating music it is the performers who transform the score into the music as audiences perceive it. The score is an imperfect representation then, for as much as it may prescribe and suggest how performance is to be realized, it does not, and in some ways cannot conceive of the qualities which uniquely exist in performance – the musical and sonorous qualities which resist reification by score. In particular, the score:

"cannot accommodate the 'sound' of popular music: the distinctive inflections of voice and instrument that enable otherwise similar pop music artefacts to be differentiated by

[606] Rahmatian (n 596).

audiences, and the manner in which these inflections are enhanced, manipulated and embellished in the recording studio."[607]

As such, to dissect the score and treat it as denotative of the music is accordingly a narrow view of the musical subject, it diminishes the emergence of "phonographic oral culture",[608] and "downgrades the vagaries of performance, the productive significance of variants, and the influence of performance context; practice is frozen into symbol".[609] Applying then the criticisms of musicology to copyright, copyright's inability to accommodate performance or sound can be understood as the product of its elevation of the score as the fundamental or primary object-subject through which it defines and describes the musical subject. And although copyright supposedly recognizes that music exists beyond the score, it nonetheless seems committed to relying on the score to draw conclusions about the nature of the musical subject, whilst refusing to attribute to performative qualities the same importance that it ascribes to conventions which attach to composition. There are several possible reasons for this, including for instance the fact that composers as sole arbiters of meaning fits well within a romantic model,[610] but for the current discussion and for interactive creations, the best relevant explanation is because copyright singles out certain objects to define the object-subject that it protects, copyright tends to limits its vocabulary to meaning and semiotics which are found in the object, or which relate to the form prescribed by the object it recognizes. Whilst blinding itself to qualities or in copyright terms 'expressions' which may be distinct from the object, or difficult to accommodate within the formal qualities of that object, regardless of their importance to the subject. Performance features for instance, which attribute more to the performer than the score, become difficult to reconcile under this approach. As such, where the nature of the meaning and value is more intangible or independent from an object, as demonstrated in copyright's approach to artistic works and its emphasis on artistic object and form, copyright struggles. In the same way that conceptual art resists copyright reification owing to the nature of its subject existing in the ephemeral – through performance, time, and idea as understood in copyright, so too does music.

[607] Barron, 'Introduction' (n 598).
[608] ibid quoting Toynbee (n 820).
[609] Barron, 'Introduction' (n 598).
[610] ibid citing Goehr (n 820).

For music, the problem ultimately lies in its nature, because as it has been contended, music is sound, and sound is fundamentally too amorphous and ephemeral to be conceived of by copyrights object-subject.[611] As such, the more that music seeks to rely on sound as its defining feature, the harder it becomes for copyright to accommodate. Not only because the score is of limited use in defining sound, but even copyright's object which is chiefly concerned with sound – sound recordings, is unable to accurately characterize sound as an artistic phenomenon. In part, this might be said to be more to do with copyrights treatment of sound recordings, since whilst the accommodation of formal and intangible qualities as protected characteristics has been recognized for musical works as scores, the same shift has not occurred for sound recordings. As such, lack of protection for sound qua sound recording might be explained by the absence of a formal recognition that it should be. However, it may equally if not more so be explained by the "built-in incompatibility between "sound" and property rights".[612] On the one hand, "[s]ound 'is nothing more (nor less) than a vibration, which gradually ceases to exist just as we have apprehended it… The immateriality of sound therefore 'presents the law with difficult questions of definition and delineation'".[613] Which accordingly resists being fixed in an object. Moreover, it is not clear whether recognizing or extending protection in the qualities which "account for a recording's distinctive 'sound'"[614] even resolves the intrinsic problem. Since like the score, doing so fixes or forces the sound as something fluid and ephemeral into something static, it creates a false stasis to represent something dynamic.

This then is one of if not the defining problem with music for copyright. Much like performance, music is essentially a product of time. As such, by trying to fix music to score, or sound recording, copyright (and musicology in the case of the score) attempts to "transform a temporal experience into an imaginary object".[615] In doing so, both inevitably fail since time resists fixation and reduction to object and by extension music does too. As Rahmatian contends:

[611] Barron, 'Introduction' (n 598).
[612] ibid citing Gaines (n 523).
[613] ibid.
[614] Barron, 'Introduction' (n 598).
[615] ibid discussing Nicholas Cook, *Music, Imagination and Culture* (Repr, Oxford Univ Press 2008).

"the most fundamental constituent of music is time. This means, time is not just presupposed, but the art form of music must deal with the problem of time actively as part of making the art. Music can be seen as a temporal structure, not as a structure in time: the structure unfolds in time, this is its very nature. Time is not the framework for what happens in it (structure in time). Music is rather intrinsically a time-bound process (temporal structure). So music is a process as an aspect of time (dynamic), not an object or product within the framework of time (static), like a statue or an architectural work."[616]

Expanding on this, Rahmatian argues that the law perceives time only in relation to an object, not as constituent to it. Time may be understood as a structure or framework within which the object can be said to exist, but not as or as part of the object itself. "For the law, time acts on the object, but is not part of its making…copyright law…creates notional structures in time, but it cannot deal with a temporal structure, such as music".[617] As such, the law compromises by extricating from music the qualities which can be reified into static objects, into artifacts which facilitate more certain and finite boundaries so that the object-subject may be treated as stable. In effect, "[t]he way in which the law seeks to incorporate the purely time-bound phenomenon of music in a notionally timeless structure is to freeze specific aspects of music by declaring them as legally relevant elements of protection".[618] And in doing so, discards and filters out the qualities which resist this chiefly material reification. Copyright splinters performance from composition and defines music as the latter, and thinly protects performance as a recording. A mere reflection of the actual musical subject as a process and product of time. Like a photograph it is but an afterthought, a representation of the experience, but not the experience itself.

In diminishing the importance of time to music, copyright in turn minimizes the centrality of performance to music. The assumption that music can be understood as "autonomous of their social contexts and functions and ontologically prior to any

[616] See Rahmatian (n 411) discussing TW Adorno, *Über Einige Relationen Zwischen Musik Und Malerei: Die Kunst Und Die Künste, Vorträge Aus Der Reihe Grenzen Und Konvergenzen Der Künste 1965-66* (Akademie der Künste 1967).
[617] Rahmatian (n 596).
[618] ibid.

audience response"[619] is a central premise underscoring musicology. And accordingly, the same criticism that musicology fails to appreciate popular music because "popular music's effects are achieved through its ephemerality, its existence as a socially significant event rather than as an autonomous object; as 'performance rather than fixed text; as the experiential rather than the abstract"[620] applies to copyright as well. By taking this approach, copyright invariably limits meaning and creativity in a way that ignores or downplays the participants actively involved in the production of meaning and creativity for the purposes of performance. Despite the critical role a performer or sound technician may play in shaping the performance, to the extent that music is understood through compositional elements rather than performance, there is little recognition afforded to their efforts. Moreover, the norms derived from composition in a traditional sense become difficult to apply or analogize to those which might be framed and understood in the context of performance or sound, such as in the case of DJ performances, remix and mash up culture and similar practices facilitated by digital culture.[621] The centrality of composition means the semiotics lie within composition, which may fail to appreciate the norms and expressions which exist for these popular musical practices. Copyright law's disconnect with performative elements is well if not best demonstrated by the challenges posed by jazz. As Barron argues:

"the jazz aesthetic places great value on the process of performing, and arguably the greatest value of all on improvisational performance. One implication of this is that identity distinctions are drawn between jazz 'pieces' – the concept of the 'work' is singularly inapt here – primarily in terms of how these are performed, and not in terms of how the composed elements were originally scored (Horn, 2000). A jazz score is ideally a guide for the performer, not a definitive blueprint"[622]

It is not difficult then to see how the score-centric and performance shy model of the copyright work presents inherent challenges for jazz as a genre. The score, and the associated insistence on stability, and fixed notated qualities clearly is of limited assistance in assessing jazz music as spontaneous and protean. Jazz also demonstrates a

[619] Barron, 'Introduction' (n 598); Middleton (n 602).
[620] Barron, 'Introduction' (n 598); Middleton (n 602).
[621] Barron, 'Introduction' (n 598).
[622] ibid.

related problem with music as a product of sound, owing to sounds closeness with "ideas" in a copyright sense, and since it arguably resists the dichotomy more so than for instance, storylines or even fact.

Connected to the idea-expression dichotomy is the requirement that expressions must be understood as the product of an authors contribution, they must be original. However, jazz as a genre specifically is built upon appropriation, reference and repurposing. As such, "the line between an original jazz composition, which necessarily entails borrowing and referencing earlier works, and an arrangement that lacks sufficient originality, is difficult to draw in the jazz context"[623] This is exemplified by the convention of standards in jazz music:

"Many jazz performances are based on "standards." Jazz standards are those pieces "that a professional musician may be expected to know." These standards, sometimes also referred to as "mainstream standards," were generally written in the 1930s, '40s, and '50s for film and Tin Pan Alley or Broadway musicals by non-jazz musicians such as George Gershwin, Cole Porter, and Harold Arlen. Thus, jazz per- formers are typically not the copyright owners of the very pieces that undergird the jazz canon."[624]

The practice of standards and their application thus works towards defeating what might be claimed as expression in a jazz piece, owing to the lack of demonstrable originality. Moreover, the emphasis which copyright places on origination for defining expression and in turn determining what qualifies as the creative subject of the work is disconnected with the meaning and value specific to jazz music. For jazz, the very fact that these standards are recognizable goes to the heart of the genre, because it is in their arrangement and improvisation which creates meaning.

"[T]he standards, while independent, creative works at one time, take on a different role when employed by the jazz musician. In jazz, the underlying composition is simply raw material - it is not intended to be the end product that reaches the listener or

[623] 'Jazz Has Got Copyright Law and That Ain't Good' (2005) 118 Harvard Law Review 1940.
[624] ibid.

consumer, but is simply the idea from which the predominantly improvisatory expression flows"[625]

Accordingly, the 'expression' or subject lies in the interpretation and in the differences between the original and the jazz interpretations. The expression is found in the performance and in what copyright might term an idea. Neither of which is protected or easily accommodated by copyrights emphasis on score. Jazz turns what copyright would treat as expression, into idea, causing even more challenges for copyright in identifying what constitutes the work or subject. As copyright effectively treats the underlying composition as the work, whilst diminishing the creative and artistic efforts of the jazz artist. Failing to properly appreciate and recognize the subject of jazz. Similar problems occur with rap music owing to its reliance on sampling – "the re-use in new recordings of parts taken, by digital reproductive means, from pre-existing sound recordings and thus also from any music embedded in these recordings."[626] And much like with jazz, rap music relies heavily on appropriation to facilitate meaning in its music.

That copyright struggles to accommodate jazz and rap might be understood as a product of the dichotomy's fundamental difficulty with assessing sound as something distinct from idea. And whilst appropriative musical practices demonstrate how artists might transform expression into idea for the purposes of their genre, even in general the distinction between idea and expression seems difficult to apply to music. For instance, what musicians may consider the important expressive qualities of a piece of music, such as rhythm, melody, tone or harmony, in law such elements as much more likely to be treated as ideas.[627] As Rahmatian contends:

"It appears that notions of 'storylines', 'historical facts', 'central themes' as instances of non-protectable ideas are easier to grasp than non-protectable concepts of music. This is …because with music the matter is more difficult: what is actually copied if the subject-matter of protection is supposed to be the sound, not the score? If 'ideas', that is, building blocks of the craft of music, are taken, and that is entirely inevitable, then

[625] ibid.
[626] Barron, 'Introduction' (n 598).
[627] Rahmatian (n 596).

the result may well sound similar to the claimant's pre-existing works, and that points towards infringement."[628]

A further problem for music then is the closeness with an idea to its sound. Since for music, the very realization of that idea ultimately manifests through sound. It may be scored differently, but it can easily sound similar. Which may even explain why copyright has so often taken recourse to assessing the score rather than sound notwithstanding its purported protection of the latter. In any event, copyright's definition of idea, and its attempted severance of idea from expression proves particularly inapt for assessing music. The conventions and practices of music do not readily fit the model prescribed by expression abstracted from idea, especially where for music, the object-subject which the abstraction is applied to can be understood as only a partial representation of the musical subject.

As such, regardless of whether copyright's lexicon is treated as synonymous or partly synonymous with musicology, the fact that it relies on a framework predominantly concerned with objects and formal qualities associated with those objects, it falls short in describing the subject independent from that object. Similar with copyright and art, it lacks an appropriate vocabulary that can address the specific and unique issues of music. And the assumptions it seeks to make about all copyright property are difficult to apply, especially to the genres which seek to create meaning and value that are disconnected from the manner in which copyright has sought to create meaning and value more generally. In particular, that copyright attempts to locate a static object to make its assessments means that the temporal and performative nature of music is left with limited protection if at all. Which in turn means that any techniques, expressions, and meaning which is associated with that nature of music fall to be ignored. Resulting in a disconnect between music as understood by copyright – as predominantly an object which depicts sound, and music understood aspects of its discipline – where it is recognised as a temporally contingent process, effected through performance. How might copyright seek to accommodate this more intangible perspective of music, and in turn the practices which typify it such as popular music, jazz and rap? One approach is outlined by Echoud who suggests that "[w]e might more accurately conceive of open-

[628] ibid.

ended 'works' as processes or practices".[629] Considering Goehr's suggestion that "it is neither necessary nor obvious to speak of classical music – let alone all types of music – in terms of 'works', despite 'the lack of ability we presently seem to have to speak about music in any other way'",[630] observing further that in general the work model does not effectively "map onto all types of creative practices equally well".[631] Simply discarding the work or reconceptualising the definition to enable processes and practices is not without problems, but it is worth noting that such an approach might enable music to more accurately reflect music as a process, rather than as a creative object. Likewise this has implications for inchoate and interactive creations too, as works which also fit better within a work model that includes process and is not limited to arbitrary fixations which fail to accommodate the interaction and temporality that define them. The argument here isn't an appeal for copyright to adapt its work model to include processes as such, but rather, it is to understand the limitations of copyright's model that is preoccupied with objects, and formal qualities and conventions associated with those objects. Whilst reiterating that specific subjects of certain categories of creations may have defining features or a nature that renders them difficult to reconcile within this model and may require unique solutions so that copyrights object-subject better reflects their actual subject.

4.5 – Film

Finally, it worth briefly touching on film because the manner in which film has been addressed by British copyright reflects some of the notable issues for accommodating interactive creations generally – the challenge with appropriately categorizing multimedium works and the shortcomings of protection by analogy. It has been stressed throughout that a fundamental problem for film under British copyright is that film is only protected as an object, rather than as a subject. It has been suggested that this is evidenced by *Norowzian*,[632] which demonstrates that copyright's protection of film qua

[629] van Eechoud (n 489).
[630] ibid quoting Goehr (n 820).
[631] van Eechoud (n 489).
[632] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

film is thin and limited to the object, and that film's subject is left to be protected qua dramatic work. And even besides *Norowzian*[633]:

"the shift that made [the] intersection of aesthetic and legal understandings possible in respect of literary, dramatic, musical and artistic works (in other words the shift from identifying the object of copyright protection with its material carrier - enabled by particular technical means and processes - to identifying it as an expressive form embedded within but not co-extensive with the carrier) has never been fully achieved in relation to film"[634]

Indeed, the issue can be traced all the way to the Gregory report in 1952 which considered whether film ought to be a treated as a distinct work, where it was concluded that "films had no aesthetic significance of any note"[635] and that "films approximate more closely to industrial products than to original literary [or dramatic, musical or artistic] works".[636] A conclusion which eventually led to the conclusion that a film subsisted not in some intangible subject, but as the physical material in which it was recorded on – its celluloid. Furthermore, whilst *Norowzian*[637] represents an important step in the direction towards recognizing that films may have value and qualities which lie beyond its physical manifestation, by seeking to construct the subject of film through the category of dramatic works, copyright incorrectly creates a relationship between the dramatic work and the filmic object, whilst perpetuating copyright's disconnect between its object-subject of film against film as understood in its discipline. As Barron argues:

"[D]ramatic copyright applies to a narrow range of films, and as Norowzian vividly shows, this 'something more' is itself limited to elements such as the story told by the film, together with the story's setting, characters, incidents and narrative structure: the specifically filmic expression of this story is left out of account and thus unprotected, as are non-narrative and stylistic components of film form. In effect, the dramatic

[633] ibid.
[634] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[635] ibid.
[636] ibid citing Report of the Copyright Committee, London, HMSO, 1952, Cmnd. 8662.
[637] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).

copyright subordinates the moving image to the requirements of a specific type of narrative structure."[638]

As such, film privileges what can be termed "a broadly Hollywood model of fiction cinema",[639] as *Norowzian*[640] emphasis on narrative form mirrors the "characteristic of classical Hollywood cinema: action, set in a particular spatial location, propelled along by human characters, and organised into a chronological sequence of events with a beginning, a middle and an end".[641] Accordingly, the problems for film are not dissimilar to the issues with narrative primacy which can be observed with literary works. Much in the same way that not all written works can be said to rely on narrative semiotics and conventions, not all films seek to apply narrative forms in its creation and presentation of the work. Crucially, even if a film seeks to follow a narrative structure, there are specific conventions which are unique to film to give effect to its narrative, which may not necessarily correspond to those found in dramatic works, or in a script if the filmic narrative was sought to be identified there either. "[F]ilm narration…depends on the use of specific devices to control the range of story information made available to the viewer, and from what point of view",[642] and may depend on a plethora of techniques ranging from "techniques of the shot such as mise en scène and cinematography; the technique of editing; and the technique of assembling the final film, in particular by relating sound to film images."[643] It is through these, rather than metaphor, plot, or theme which a film might seek to construct its narrative, or at least may rely on film-specific techniques to give effect to those narrative conventions. Likewise, those techniques may equally be utilised to evidence non-narrative elements, aspects such as "the arguments advanced by a film, or the manner in which a film displays the abstract visual and sonic qualities of what is depicted within it, or the way a film evokes a particular mood".[644]

Thus film in copyright privileges a reductive interpretation of the film subject, which fails to accurately represent film because the intangible qualities of film are left to be

[638] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[639] ibid.
[640] *Norowzian v Arks Ltd and Guinness Brewing Worldwide Limited (No. 2)* (n 133).
[641] Barron, 'Commodification and Cultural Form: Film Copyright Revisited' (n 45).
[642] ibid.
[643] ibid.
[644] ibid.

shoehorned by reference to dramatic copyright. It overlooks and underprotects a film's visual creativity[645] and limits film's subject to only those expressions which follow a narrative structure. By treating film as strictly a vehicle for narrative, film in copyright becomes disconnected from its cultural discourse by blinding itself to the very conventions and expressions which define film and distinguishes it from the other copyright categories. Especially those which may not serve a narrative 'purpose' in generating meaning and value.

As such, film is a particularly striking example of how and why copyright has been forced to make incoherent judgements in infringement cases. The absence of an appropriate and specific category, as well as the reference to dramatic works demonstrates how copyright can be simultaneously over and under protective for certain works in particular. Where for instance, works which can be perceived to have little creative value – such as security videos, can meet copyright's physicalist definition of film and be protected. And similarly, narrative qualities are treated as indicative of the creative subject, even if they may only partially apply, if at all. Whereas the unique formal qualities and conventions of the category are completely set aside since there is no category pertaining to it as an object-subject, merely an object, where it's subject is left to be defined by analogy and reference to other copyright categories. Again, Norowzian is particularly helpful in demonstrating this shortcoming of copyright, for in its recognition that film must constitute something more than the celluloid, the absence of a category or explicit recognition of film having a valuable subject in copyright meant that it was limited to elements which copyright could recognize. The absence of a comprehensive category for film and an appropriate vocabulary for defining the films subject mean that film had to find indirect protection. And this same approach can be extended to assess and understand the bizarre conclusions reached for video games. Where copyright has elected to focus on character or visual qualities to otherwise protect the subject of interactive creations which copyright lacks the language to protect.

[645] Richard Arnold, 'Content Copyrights and Signal Copyrights: The Case for a Rational Scheme of Protection' (2011) 1 Queen Mary Journal of Intellectual Property 272.

4.6 – Conclusion

This chapter has shown why copyright's subject matter is limited and incapable of appropriately protecting interactive creations in several ways. Firstly, it has outlined the general limitations with copyright's subject matter, and by drawing on cultural scholarship, demonstrated why various analytical traditions relied on by copyright are flawed. Either because they have inherent shortcomings as theoretical models – for example with musicology or modernism. Or because they do not comprehensively correspond to the spectrum of works and characterizations described by the subject matter – as is the case with literary works. Resulting in a framework and vocabulary that only facilitates partial protection at best, and inappropriate protection at worst. Secondly, it contended that there are certain characteristics that are particularly difficult for copyright to accommodate, characteristics which go to the heart of specific subject matter such as temporality for music or space for installation art. Finally, British copyright in film was also noted as being particular demonstrative of the problem for interactive creations, where its classification by copyright not only illustrates the shortcomings of copyrights work and object-subject construction, but also pre-empts the challenge for interactive creations, as a subject matter which completely lacks any formal classification or categorization under copyright. And, the similar emphasis on narrative which occurs for film, seems evident with the kinds of expressions recognized in interactive creations, and with the protection afforded to them.

As the following section contends, many of the subject specific problems discussed also apply to interactive creations. For instance, the fact that they are underscored by software means that the biases towards narrative for written works is imported, and in the same way that not all written works fit a narrative lens, neither do all interactive creations. Likewise, interactive creations' inchoate and in turn temporal nature, and the closeness of 'function' with ideas also means that certain problems with conceptual art may be compared to problems with protecting interactive creations. And similarly, parallels between 'performance' and 'play' and again the temporal nature of sound can be drawn, and accordingly, the observations made regarding music also shed insight. And finally, the recognition in film that narrative conventions may not always be analogised to those found in dramatic, or indeed literary works, is relevant for

interactive creations. As is the literary work observation that narrative importance can vary in degrees.

The next section will assess these challenges for interactive creations and will similarly draw upon scholarship from its cultural discourse to better make sense of the subject which copyright is disconnected with. Because although interactive creations share many problems with the aforementioned categories, the nature of interactive subject matter and the fundamental quality which makes interactive creations unique, the interaction, presents challenges which are not encompassed within existing commentary. Suggesting that to properly address the challenges facing interactive creations, it is necessary to adopt an approach which specifically considers interactivity and interactive creations distinctly both in terms of the challenges they introduce as well as their disconnect with the principles copyright has developed.

Chapter 5 - Addressing interactivity and Ludology as a critical lens

5.1 – Introduction

Copyright has been unsuccessful in circumscribing its protected subject matter, and the protection afforded to works like interactive creations has been especially inconsistent and incoherent. This is because copyright lacks appropriate subject specific solutions for conceptualizing certain creations. Leaving works to be protected by analogy to subject matter which may only be partially relevant or be protected by virtue of objects or material characteristics which do not always correlate to the immaterial qualities of the work. For example, by applying literary or narrative concepts to literary-adjacent works like film. Or by emphasizing the score, a material crystallization of music which might be more accurately described as intangible and temporal.

This chapter focuses on the challenges facing interactive creations. Addressing the problems which are unique to interactive creations, and which cannot be understood by the preceding explanations and analysis, since previous discussions concerned either general conclusions, or observations which pertain to similar but nonetheless different subject matter. As such, to fully appreciate the characteristics of interactive creations, and the challenges that interactivity presents, a look at interactive creations as a distinct subject is warranted. In doing so, video game scholarship provides a helpful foundation, since the majority of interactive creations that copyright encounters are video games, and because certain video game theories explicitly seek to address and understand the unique challenge which interactive creations present – interactivity.

Game studies scholarship demonstrates two things in particular that are relevant for the current discussion, firstly – that narrative conventions in video games are not necessarily analogous to those in literature, film and drama, and that secondly, meaning making or ‘expression’ in video games is not limited to narrative or what certain academics describe as ‘representational’ semiotics. Since by virtue of their interactivity, and the importance of experience, video games have a specific and

entirely different expressive and meaning making structure – a "ludic" [646] or "simulational" [647] meaning making structure. Which affords video games completely unique tools and techniques that can be leveraged to generate meaning and expression, and which function in ways entirely different to any other subject matter that copyright presently protects. As such, game studies is helpful for demonstrating how copyright's literary driven approach to understanding narratives precludes the kinds of narrative expressions which are available for interactive creations. And is also helpful for showing why a predominantly narrative and object-oriented approach is inappropriate and why copyright fails to comprehensively reflect the nature of interactive creations and their expressive potential as a unique subject matter.

Accordingly, 5.2 will first provide a brief introduction to game studies, narratology and ludology, before turning to 5.3 for an overview of various terminology which will help structure the following discussions. 5.4 will then consider analysis of theorists who focus on video games as expressive artefacts which extend the narrative tradition and will examine the unique forms and approaches to narrative expression which are available to video games. Considering first the new kinds of narrative structures which exist for video games, and then examining the new tools that video games can leverage to generate narrative meaning. Discussing how these new narrative structures and tools are difficult for copyright to accommodate and assess, owing to its tendency to apply predominantly literary models when analysing narratives and associated expressions. It will then consider the limitations of a strictly narrative interpretive approach before moving onto the discussion of ludology in 5.5. In particular, 5.5 will rely on the works of Frasca, the arguable pioneer or figurehead of the ludology movement which has helped reconceptualise the discipline in the last two decades to better address the unique properties of video games, framing the discussion through Frasca's model of a game for ease of structure. Considering first the Playworld, then Mechanics and then the concepts of Playformance, Kinesthetics and Haptics. Discussing throughout the implications which each of these respective concepts and their associated conventions present for copyright. 5.6 will then touch on the limitations of ludology as a theoretical lens before concluding the chapter in 5.7.

[646] Frasca, 'Simulation versus Narrative: Introduction to Ludology' (n 369).
[647] ibid.

5.2 – A brief introduction to game studies and the disciplines of narratology and ludology

It is imperative to recognize at the outset that game studies is not a unified or cohesive field, nor is there a single overarching discipline of game studies as such.[648] There are various disciplines which could reasonable fit within a broad description of 'game study', ranging from game design, computer science, ludology, narratology, media studies, cultural studies, game theory, and much more besides.[649] For ease and for the purpose of simplicity, game studies in the context of this thesis will primarily refer to narratology and ludology. There are two reasons for doing so, firstly, because they are arguably the two most helpful disciplines in discussing the ontology and expressive qualities of video games; as they both seek to apply frameworks for describing the various properties and for interpreting the content and meaning which might exist in video games. Secondly, because the situation which precipitated the departure from narratology and development of ludology as a discipline in many ways mirrors the situation currently facing copyright and interactive creations. Like copyright there was an absence of a vocabulary for addressing what was argued to be the properties and challenges specific to the medium, and the initial dominant approach to interpretation was fundamentally narrative. And as such, certain theorists or 'ludologists' sought to remedy these limitations by devising approaches and frameworks which were more tailored for assessing the characteristics unique to video games.

As discussed, the characteristics of interactive creations present numerous challenges for copyright as a new medium. They are inchoate and therefore ambiguous, they represent both systems of play and systems of representation,[650] and they are underscored by software and mediated by computers or as Manovich describes "digitally native"[651]. These characteristics similarly presented some initial concerns for certain academics in game studies and humanities scholarship. And some academics

[648] Henry Lowood, 'Real-Time Performance: Machinima and Game Studies' (2005) 2 The International Digital Media & Arts Association Journal 3.
[649] Astrid Ensslin, *The Language of Gaming* (Palgrave Macmillan 2012).
[650] William Humberto Huber, 'The Foundations of Videogame Authorship' (University of California, San Diego 2013).
[651] Lev Manovich, *The Language of New Media* (1st MIT Press pbk. ed, MIT Press 2002).

stressed that the importance of the computer and the way function and interaction could potentially mediate the interpretation of a work's expressive content meant that these creations warranted different if not distinct approaches to how the content of an analogue object might traditionally be constructed. Placing an emphasis on "the distinction between the video game/computer game as a system of activity and as a system of representation".[652]

In terms of the history of game studies, it has been observed that initially, the approach to game study was one which followed the traditions and approaches of literary studies. Or at least this was the contention made by Aarseth, who's seminal work *Cybertext: Perspectives on Ergodic Literature*[653] marked the first departure away from literary tradition, and is often cited as the work which led to the eventual 'debate' or discussion[654] between ludologists and narratologists. Narratologists can be understood as referring to "theorists whose disciplinary approaches drew from literary studies or film theory, and more specifically for those whose interpretation of videogames foregrounded narrative, fiction and representation over the behaviours of games as formal systems".[655] Focusing on video games as an expressive and interpretive medium within the narrative tradition. For instance, they might extend literary concepts like metaphor to video games, either through more obvious parallels by looking at text and dialogue in video games. Or they might adapt or expand narrative analysis, by introducing unique concepts or tools which video games are able to leverage in constructing narrative, discussing for example how rules and restrictions which affect the player can be used to mirror narrative or 'story' limitations and obstacles facing the protagonist. Making gameplay a reflection of the accompanying narrative.

In contrast, ludologists can be described as researchers who approach the study of games as a more independent discipline, with early ludologist calling for "the creation of a family of conceptual frameworks and interpretative methodologies unique to the study of games".[656] Treating video games as a new cultural artefact with unprecedented

[652] Huber (n 654).
[653] Aarseth, *Cybertext* (n 168).
[654] Since it has been suggested that the extent and severity of this debate has been overstated, see Gonzalo Frasca, *Ludologists Love Stories, Too: Notes from a Debate That Never Took Place.* (2003).
[655] Huber (n 654).
[656] ibid.

expressive and interpretive potential, and which warranted novel analysis to reflect this. Focusing on interactivity, attributes of play, experience, and performance. For instance, some observing that the "procedural, participatory…and spatial"[657] aspect of a game presented distinct rhetorical tools that are not well described by the models which are concerned with fixed works where expression is conveyed rather than explored. Or noting that unlike previous mediums, the subject or "system" which audiences engaged with facilitated a participation in the work that emphasised experience and performance, which in turn warranted a different interpretive approach from works where audiences were passive and detached from the work. Alongside this, there was also an emphasis on clarifying and identifying "the formal characteristics that mark out the boundaries of video games as a distinct medium" [658] and on the terminology that is the most appropriate for analyzing video games. As such, various taxonomies and models were developed, many of which containing concepts that are simultaneously different and overlapping, for instance cybertexts, rule-based systems, simulations, ergodics, cyberdrama, all describe interactive media but have various differences in how they frame or describe the interaction.[659] Regardless, common to many of these terms is an emphasis on interaction, participation, and procedure, and an emphasis on performance, and rules. And it is the significance placed on these concepts which ultimately sets them apart from their narratological counterparts, and which present particular difficulties for copyright with its more 'represented' ontology or 'narrative' approach to constructing expression.

To better explain the differences between ludology and narratology, and although they are not mutually exclusive, it might be helpful to briefly consider an illustrative example of the difference between a 'ludic' approach and a 'represented' or narratological approach. For instance, ergodic interpretation primarily describes the construction of meaning through rule interaction, rather than engagement with represented information conventional to film and literature. As Frasca explains:

[657] Murray, 'From Game-Story to Cyberdrama Janet Murray' (n 30).
[658] Steven Malliet, 'Adapting the Principles of Ludology to the Method of Video Game Content Analysis' (2007) 7 Game Studies <http://gamestudies.org/07010701/articles/malliet> accessed 9 September 2021.
[659] ibid; Aarseth, *Cybertext* (n 168); Murray, 'From Game-Story to Cyberdrama Janet Murray' (n 30); 'Games Studies 0101: Games Telling Stories?' (n 32); Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).

"Ergodic interpretation is the process that creates a mental model…Basically, the user's mental model is her idea of the rules of the simulated model…Depending on the experience that the user had with the doll, he may have learned some of its rules: 'if the doll lies horizontally, it will close its eyes,' 'the doll will make a noise every time that her tummy is pressed,' or 'the doll's legs and arms will move if manipulated.'"[660]

Contending therefore that because the meaning is achieved only by experience and by interaction with the 'rules' of the doll, a model of meaning that anticipates experience and rules is necessary. Whereas in contrast, although a traditional semiotic model – such as a user manual for that doll – might explain how the information is represented and then interpreted, it cannot accommodate the specific and unique interpretation that stems from the first-hand experience of play and activity. This difference in interpretive approaches very loosely describes the difference in approach between ludology and narratology.

Before moving on, it is worth stressing that numerous scholars – including those on either side of the debate have acknowledged that there is no real dichotomy between the two approaches, and that in comprehensively understanding video games the two should not be divorced. Indeed, it is even suggested that the debate never truly happened.[661] However, for ease of structure, narratology and ludology will be dealt with separately and in turn. Moreover, it is not the focus of this thesis to identify or present the perfect ontology for interactive creations let alone for game studies, nor does it even seem desirable or possible to attempt such an endeavour. Since even within narratology and ludology there are various discrepancies and differences in the conceptual models developed, with constant updates and revisions being made including by the authors of the proposed models themselves. To that end, for the purpose of the following discussions Bogosts proposed 'flat ontology' – an approach which places all models equal ontological status, or Huber's description of video game

[660] Gonzalo Frasca, 'Ludology: From Representation to Simulation', *Proceedings of the 29th International Conference on Computer Graphics and Interactive Techniques. Electronic Art and Animation Catalog.* (Association for Computing Machinery 2002) <https://doi.org/10.1145/2931127.2931198>.
[661] Frasca, *Ludologists Love Stories, Too: Notes from a Debate That Never Took Place.* (n 658).

ontology being in a state of "permanent bricolage"[662] is the most helpful way of describing how the following sections define and structure the overarching ontology of games. Since this chapter leverages conceptual models and analysis from game studies to demonstrate the shortcomings of copyright's more representational and literary narrative model rather than propose a specific model for copyright. And does so by relying on the various models and analytical approaches developed under both the narratological umbrella, and the ludological umbrella.

5.3 – Terminology and Concepts

Readers familiar with game studies will likely realize that the preceding chapter subsumed various terms and concepts into broad conceptual umbrellas, and to some extent treated some terms as near synonymous notwithstanding their nuanced differences between them. This is because the approach taken by this chapter is fundamentally a general one and which touches upon a variety of different and sometimes overlapping theories, and as such is necessarily non-exhaustive and an approximation. And whilst a more precise and focused application of a specific model against copyright may eventually prove fruitful, at present the aim is to both showcase the numerous oversights with copyright's approach, as well as consider the potential terms and tools which copyright may wish to consider or seek to develop its lexicon and framework to include. In a similar vein, it is helpful to take a moment to introduce and clarify a few terms which will frame and structure the following discussions, and to facilitate analysis for readers less familiar with terms or concepts developed in narratology, ludology or game studies in general.

Previous analysis has touched on or relied upon certain terms in describing the copyright work against what has been termed the cultural '**subject'**. The term has been loosely used to refer to the work, the artistic 'creation', or the 'text' as it might be called in conventional cultural studies. But it has also been used to describe and include both the object as well as the 'content' of that creative object although the previous chapter predominantly described it as the latter, and included the object by terming it

[662] Huber (n 654).

the ‘object-subject’. Again, if this thesis sought to present a definitive and or coherent ontology and taxonomy, then it might be more imperative that a more precise and specific phrase or even phrases be implemented, but for present purposes, a general term and inclusive term is more helpful and thus the shorthand of ‘subject’ is suitable and moving forward will refer to the work, object, text and subject (as previously used) collectively.

Various other terms which the previous chapter touched upon were: qualities, characteristics, form and formal properties, normatively relevant properties, ontologically relevant or ontological properties, elements or legally relevant elements, creative features and so forth. To some extent, the breadth of terms used and employed was unavoidable, as a product of various different author’s choice of words, as well as a result of their reliance on different theories, including theories across different disciplines, to describe different objects and creative categories. Again, whilst specific and precise definitions and distinctions might better serve the proposal of a certain model, since this chapter relies on multiple models and approaches, a general and all-encompassing term is preferable. As such, for the purposes of this chapter these various terms will be subsumed into the term ‘**properties’**. And hereafter refers to any of the ‘properties’ which might exist within the ‘subject’.

The terms expressions, conventions and semiotics were loosely used in tandem, or near synonymously in the previous chapter. There are again clear nuances and differences between them, not least the implicit copyright connotations associated with expression as both a particular legal concept, and as a term defined in opposition to idea. Nonetheless, for the purposes of this chapter, ‘**convention’** will be used to refer to these aforementioned terms, as well as rhetoric, formulation, sign, symbol or any other term which might be described as a term for a ‘vehicle’ of conveying, communicating and interpreting meaning. Or in more copyright terms, to ‘express ideas’. It may describe a specific example of an ‘expression’, or it may describe a broad approach to ‘expressing’ – such as procedural rhetoric rather than visual rhetoric. And hereafter expressions understood in a strictly copyright sense will be either termed ‘copyright expression’ or similarly explicitly acknowledged.

This is an imperfect term, perhaps more so here than for subject or properties since many of the various terms it includes often have very particular and specialised context or discipline dependent meanings whilst the use of convention here is deliberately amorphous. Semiotics for instance includes not just its own taxonomy but carries specific connotations depending on which semiotic model and authors usage that is being relied upon. Likewise rhetoric has deliberate and particular meanings depending on the context and discipline in which it is being employed. Their aggregation together under convention is therefore an oversimplification. Nonetheless, these various incorporated terms can all loosely be said to refer to the method or manner in which some kind of meaning, value or information is communicated, and will be grouped together as such. This is a necessary approximation to account for the ambiguity inherent in copyright's protected expression concept, which lacks precise definition and if nothing else, is a term born from the vague recognition that copyright protects also the 'style and sentiment' and 'doctrine' of a text, referring in effect to the manner in which meaning is made. Crucially, convention is prioritized here over other terms because it is slightly more divorced from literary and textual terminology, and accordingly better accommodates concepts grounded in action – for instance in describing conventions of play and performance.

Connected to convention is the final term and concept – '**meaning'**, which refers to the product or result of a convention. Put in strictly copyright terms, meaning could be described as corresponding to ideas in the way the convention can be described as corresponding to expression. However, as emphasized in chapter 3, copyright's idea-expression dichotomy is ultimately a limited and unhelpful concept, since ideas and expressions are difficult if not impossible to sever from each other. Moreover, it is arguable that rather than protecting expressions and not protecting ideas, copyright can be said to protect a hybrid of certain ideas and expressions. Protecting more than just the literal work as an object or commodity with value, but as an expressive artifact with worth or significance that exists beyond the literal and physical work. Whether that be creative, commercial, or otherwise. However, although copyright is relatively clear about the kinds of artifacts which it protects, it is less precise in describing the value of those artifacts beyond their physical form. As such, the use of meaning refers loosely to the various immaterial qualities which are part of the works worth or purpose. Ranging from the information contained in a factual compilation, to the emotive effects of a

musical harmony. It does to an extent refer to ideas per se, but it also refers to the non-literal expressive parts of the work, as abstracted away from the tangible object. Alternatively put, meaning essentially refers to the intangible and non-literal 'value' in a creation, the significance of the work. In the way that conventions collectively describe various ways in which a work is communicated to an audience, meaning here refers to the products of that communication. The 'point' or 'effect' which the conventions are seeking to convey both individually and as a collective whole. It is also noted here – although it will be specifically expanded upon in discussing kinesthetics – but meaning need not be meaningful, and value need not be valuable per se.

To assist in clarifying how these terms will work, the following hierarchies and examples are presented:

Painting (**subject**) > paint, canvas (**properties**) > the juxtaposition of properties such as between paint and canvas (**conventions**) > the meanings or value created by that juxtaposition (**meaning**)

Book (**subject**) > text, typography (**properties**) > the form of language, metaphor, plot, theme (**conventions**) > the meanings and effect caused by the use of language, metaphor and plot (**meaning)**

Music (**subject**) > score, recording, tone, sound, performance (**properties**), riffs, jazz standards, inflections, phonographic oral culture, the "productive significance of variants" (**conventions**) > the effect and product of the riffs, inflection, and standards (**meaning)**

Again, this is not a specific ontology or taxonomy, but a crude structure which seeks to draw parallels between how copyright defines and understands a subject against the various properties and conventions that might be described by cultural disciplines. Where the objective is to demonstrate lapses in copyright's lexicon and tools.

5.4 – Narrative and New Narrative in Game Studies

It has been contended that when copyright has encountered works which concern or include narratives, it has tended to assess the narrative using predominantly literary frameworks and concepts. Even though the approach to constructing and communicating a given narrative may differ between mediums. Since certain mediums may have unique properties and conventions for creating narratives, and may rely on specific tools and structures which do not readily translate across different mediums. For instance, in contrast to literature's textually driven narratives, film includes "a range of film-specific features having to do with visual perspective, sequence editing, and viewpoint."[663] And many theorists have similarly noted how digital media such as video games have enabled radical departures to constructing narrative compared to analogue media such as books and other literary texts,[664] discussing how tools specific to the medium - like mechanics or agency present new avenues for creating narratives. Likewise, the medium may rely on conventions and structures which do not easily or immediately fall within traditional narrative conventions, structures and analysis. For example, conventional "expectations regarding elements such as sequence and causality" [665] may be difficult to extend to video games which through interaction challenge traditional assumptions about linearity, allowing players to dictate, disrupt, and change sequence and causality. As such, this section will consider some non-linear narrative structures and some unique narrative tools afforded to video games, examining how they differ from the literary structures and traditional media conventions which copyright relies on, and discussing why a strictly or predominantly literary approach is insufficient.

5.4.1 – Non-linear narrative structures

Conventional narrative structure, especially in most story-driven entertainment can be described as linear. This does not refer to the internal chronology of the narrative per

[663] Burk, 'Copyright and Hypernarrative' (n 559).
[664] 'Games Studies 0101: Games Telling Stories?' (n 32); Laurel (n 30); Wardrip-Fruin, Harrigan and Crumpton (n 169); Noah Wardrip-Fruin and Pat Harrigan (eds), *Second Person: Role-Playing and Story in Games and Playable Media* (MIT Press 2007).
[665] Burk, 'Copyright and Hypernarrative' (n 559).

se, but rather the manner in which the narrative is experienced by the audience.[666] Films are intended to be viewed from start to finish, books from front to back, and for television in episodic chronology. There are of course exceptions, but this represents the general structure found in traditional story and narrative driven media. Video games however simultaneously fit within this model, and challenge it. "Video game stories typically fit on a continuum between pre-scripted linear affairs or emergent narratives, depending on the game's design and mechanics."[667] As Salen and Zimmerman suggest, there are "two broad structural rubrics for understanding the narrative components of a game: Players can experience a game narrative as a crafted story interactively told: *the characters Jak and Daxter are saving the world*",[668] – as an embedded narrative. Or "players can engage with narrative as an emergent experience that happens while the game is played: *Jak and Daxter's story arises through the play of the game*,"[669] – as an emergent narrative. The two are not mutually exclusive, and both concern interaction, but there is a crucial difference. Specifically, that the narrative in the former is more readily severed from the game, or in more copyright terms 'abstracted', since the narrative is "experienced through player interaction but exists formally apart from it".[670] Whereas for the latter, the narrative is contingent on players and play, it arises directly from play and interaction within the system. As such, whilst both frame narrative within the context of interaction and for both reconfigure the narrative through interaction, the nature of that interaction and the structure of it differs, and with it comes rhetorical consequences.

To elaborate, interaction carries consequences for the narrative in two ways. For more embedded narratives, interaction can mostly be understood as changing the structure on a discourse level, whereas for emergent narratives, interaction can be described as affecting the work on a more semantic level,[671] changing its meaning and expressions. Both these changes affect the work, albeit in different degrees and in different ways.

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[666] Lucas John Jensen, Daisyane Barreto and Keri Duncan Valentine, 'Toward Broader Definitions of "Video Games": Shifts in Narrative, Player Goals, Subject Matter, and Digital Play Environments' in Keri Duncan Valentine and Lucas John Jensen (eds), *Examining the Evolution of Gaming and Its Impact on Social, Cultural, and Political Perspectives:* (IGI Global 2016).
[667] ibid.
[668] Katie Salen and Eric Zimmerman, *Rules of Play: Game Design Fundamentals* (MIT Press 2003).
[669] ibid.
[670] ibid.
[671] Ryan (n 30).

For example, a change in the discourse level can be explained through a comparison of a cinematic film and a DVD of that same film. Where although the narrative does not differ between a film and DVD, the structural viewing experience does. As Veale contends, the ability for audiences to intervene or participate in the portrayal of the narrative events fundamentally dictates a difference in the two experiences. Where for a DVD, audiences have the ability and agency to pause, fast forward or change the order of events and effectively take control over the reception of the narrative. Arguing that "the DVD allows us to negotiate the structure of the film colours our engagement with it."[672] In contrast, the inability of cinema audiences to interact or engage with the cinematic structure of the film is definitive of the cinema experience. The lack of agency is "how we can be held on the 'edge of our seats,' by cinematic experience."[673] This Veale contends is the crucial difference, explaining how a "change in the underlying textual structure alters the experience of the text."[674] As such, the discourse or portrayal and experience of the film can be understood as being contingent on the interaction afforded to players, and even where a story can be described as 'fixed' or 'embedded', the interaction and the presentation of the story still is crucially dependent on the nature of the agency and interaction presented to audiences or players of the game. Highly interactive games alter the textual structure even further, as their interaction facilitates affective and configurative change, enabling changes to the narrative itself and carrying consequences for the work on a semantic level. For highly interactive narratives, the narrative and meaning is not merely framed by players, but dependent and inseverable from them. The choices players make, their engagement with the system, its rules, and their play create an unpredictable narrative. Narrative fragments may exist prior to play, but until explored and interacted with by players, they are inchoate, at least to an extent.

As will be demonstrated, there are copyright implications for both kinds of interaction or interactive structures, for instance, changes on a discourse level might carry consequences for how to assign importance to conventions or copyright expressions, or for how copyright might identify the architecture of a work. Whereas changes on a

[672] Kevin Veale, '"Interactive Cinema" Is an Oxymoron, but May Not Always Be' (2012) 12 Game Studies <http://gamestudies.org/1201/articles/veale> accessed 18 April 2022.
[673] ibid.
[674] ibid.

semantic level might have implications for assessments of author-work-audience relationships and in turn for circumscribing the scope of the work. And in either case, the interaction whether it be on a discourse or semantic level disrupts the linearity of the narrative, and as such creates difficulties for copyright's limited framework which effectively concerns only linear structures. There are various non-linear structures which video games can employ, but for ease of analysis and for discussing the aforementioned implications concerning architecture and authorship, the following sections will examine non-linear structures as defined by interaction within space, and non-linear structures defined by interaction in time. Two properties which as previously demonstrated already present difficulties for copyright, and which similarly present problems in the context of examining video game narratives for the purposes of copyright analysis.

5.4.1.1 – Non-Linear structure and Space

Unlike in traditional linear narratives where the structure and prescribed arcs might frame and shape the narrative, "when playing games, players often interact with the game within a space and it is this space that provides context and dimensions for its story or narrative".[675] Space here does not refer exclusively to the virtual 'location' which players are exploring as such, but rather, refers to the exploration of space in of itself. For example, it is not simply the game level of blocks and mushrooms which Mario or the player is exploring, but includes the interaction with and navigation of that level in a 2D side-scrolling environment. There may be an ostensible start and finish, but the journey from start to finish may not necessarily be linear, with the narrative being drawn and structured in relation to a player's indiscriminate traversal of space. Rather than having the narrative presented to you, as in the case with literature, the narrative is one derived from exploration. Moreover, a video game may not even have a fixed start and finish per se, it may have multiple 'paths' which can be navigated, and multiple possible endings as well. And it is not clear if copyright should or can seek to accommodate these narratives which are fragmented and which are dictated by multiple possible avenues of exploration.

[675] Jensen, Barreto and Valentine (n 670); Salen and Zimmerman (n 672); Jesper Juul, *Half-Real: Video Games between Real Rules and Fictional Worlds* (MIT Press 2011).

From a conceptual perspective, it is difficult to see how copyright might seek to quantify and protect 'space', since although the environment can be drawn in relation to objects or tangibles such as the video game's art assets, and the story or stories might be abstracted away as literary works, it is not clear how copyright can anchor the navigation itself. Especially unstructured, it seems difficult for copyright which emphasizes objects and tangibles, to accommodate navigation which is tied to 'performance'. And even setting aside 'space' or 'navigation' as concepts copyright is ill equipped to consider, there are implications for its existing approach to analysis as well. Specifically, identifying a fixed plot and structure may not always be straightforward, and the supposed 'architecture' which copyright might seek to protect for traditional literature becomes destabilized. Partly because it will not always be fixed and uniform, but also because it becomes contingent on players. Since to some extent authorial executive function becomes delegated to players. This is not always going to be the case, and will be a question of degree, but for open world games and similar systems which afford significant freedom in how space is interacted with, prescribing a clear linear narrative structure is difficult.

A related consequence of spatially driven narrative structures is that the various qualities and characteristics become harder to qualify in terms of being important, essential or relevant to the narrative. To elaborate:

"In literature, theatre and film everything matters or is conventionally supposed to matter equally - if you've seen 90% of the presentation that's not enough, you have to see or read it all (or everything you can)…In contrast, in computer games you either can't or don't have to encounter every possible combinatory event and existent the game contains, as these differ in their ergodic importance"[676]

As such, whilst it may be possible to identify key characteristics of the narrative in a traditional media work, the open-ended nature of spatial media like video games means that the importance of any given narrative characteristic, be it plot, character, or theme

[676] Markku Eskelinen, 'Game Studies 0101: The Gaming Situation' (2001) 1 Game Studies <http://www.gamestudies.org/0101/eskelinen/#1> accessed 9 September 2021.

becomes uncertain. Balancing and identifying the various qualities which then might fit the architecture which copyright protects becomes a significantly harder task, and in the absence of any unifying central narrative, it may not even be possible. And these issues become especially clear for infringement analysis. Especially since copyright's approach to infringement was developed for linear narratives that do presume a fixed, cohesive, and unified work with corresponding fixed and unified structures. And as such for non-linear works it may not be clear what characteristics ought to be considered protected, or part of the work. Even how they might be presented for a side by side comparison in the absence of a clear linear architecture is difficult to determine. This is particularly true for games which are driven by their environment. For example the story in "*Gone Home* (Fullbright, 2013), [is] told primarily through the player's interactions with objects in the environment"[677] where the order of objects is not defined, and the player need not interact with every single object. Accordingly, what objects or what "incidents"[678] as they were described in *Ravenscroft*[679] become part of the assessment for what is being copied? Equally, what is the "form and manner"[680] or architecture in which the narrative is being presented if it is that inchoate and reliant on player exploration of space? For both *Ravenscroft*[681] and *Baigent*[682] the analysis is predicated on the existence of a discernible linear structure, where the juxtaposition of potentially protected conventions is drawn in relation to the text and page. For instance, in *Ravenscroft*,[683] the finding of infringement includes emphasis on how the facts were similarly "strung together",[684] an observation reached by comparing how the incidents, characters and language are presented in the same episodic and sequentially linear fashion, from paragraph to paragraph, page to page. This approach to assessing structure, follows how the composition in a literary sense would be defined, linearly, and in relation to the text and pages of the book. As such, there are clear difficulties for video games which leverage non-linear structures and have no corresponding tangible object from which the composition can be fixed and assessed. Equally, it seems that linearity and demonstrable juxtaposition is relevant in outlining a structure as well,

[677] Jensen, Barreto and Valentine (n 670).
[678] *Ravenscroft v Herbert* (n 109).
[679] ibid.
[680] *Baigent v Random House Group Ltd* (n 110).
[681] *Ravenscroft v Herbert* (n 109).
[682] *Baigent v Random House Group Ltd* (n 110).
[683] *Ravenscroft v Herbert* (n 109).
[684] ibid.

since at least in *Baigent,*[685] the failure to find infringement was at least partially informed by the absence of a "particular collocation of discrete elements"[686] in the asserted 'central theme' and 'elements' outlined within it. Since such analysis presumes linear structures and assumes that the discourse is fixed and thus readily subject to comparison, it is not clear how copyright's analysis on narratives might be extended to video games, which are works where the architecture can be fluid and destabilised by interaction. Especially where the various 'incidents' of a game can only be described as a combination of features or elements, and there is no discrete and fixed architecture or sequence. So, to the extent that copyright's approach to defining structure and discourse follows the literary assumptions of fixed composition and linear structures, it seems limited in assessing narrative structures in video games if they are non-linear and drawn in relation to space.

The question of how to assess space will be revisited again shortly in 5.4.2.1 when considering space as an approach to conveying narrative meaning, and again in 5.5.2.1 when discussing playworlds and whether copyright is capable of protecting space at all. Especially since the previous chapter demonstrated that spatially driven art or space as part of a work for instance has resisted protection, whether it be because of fixation, or the absence of an object, or for other reasons. And like space, time is another important factor which anchors non-linear narratives in video games, and which similarly presents numerous conceptual problems for both applying a traditional narrative structure, as well as for copyright's conceptual models.

5.4.1.2 – Non-Linear Structure and Time

It was previously noted that linear narratives referred not to the internal chronology as much as it did the presentation of that narrative to audiences. This section will now expand on that observation and discuss how temporal relationships in traditional and in particular literary narratives, differ to temporal relationships in non-linear narratives and video games. For a traditional narrative structure, temporal relationships can be

[685] *Baigent v Random House Group Ltd* (n 110).
[686] ibid.

understood as being either a "diegetic sequence of events"[687] – and thus follows the events and logic of the story, and corresponds to when the story elements are taking place – the 'storytime'.[688] Or being the narrative presentation of those events, the discourse time or narrative time.[689] In either case, a strict chronological order is not necessary, but in the latter, the narrative presentation generally presumes that it will be experienced linearly, page to page following in sequence.[690] These relationships are heavily contingent on various conventions or assumptions to construct and explain the temporal relationship. For instance, grammatical tense describes temporal relationships in literary narratives, and the film phenomena as a 'recording' carries the presumption that events are prior. "In Eisenstein's account there is the sense that the text before us, the play or the film, is the performance of a "prior" story."[691] Or that there is at least, a degree of distance between the events taking place and the presentation of those events.[692] As such, there is a narrative or work which exists prior to the discourse, which can essentially be abstracted and presented for analysis through copyright. However, these assumptions about abstraction and temporal relations are reconfigured and in the context of video games. This is because:

"the interactivity between the player, content, and technical system tends to disrupt the categories of story-time and discourse-time on which traditional narrative theory rests. Rather, the events experienced through computer games are typically lived rather than recounted, so that the sequencing of action is primarily founded on the relationship between user-time and event-time"[693]

To demonstrate this, some examples are discussed. For instance, Juul considers the function of time in an action-based computer game – *Doom II*, and argues that separating story time, narrative time and reading/reviewing time presents significant difficulties. Explaining that:

[687] Burk, 'Copyright and Hypernarrative' (n 559).
[688] ibid; Juul (n 679); Eskelinen (n 680).
[689] Burk, 'Copyright and Hypernarrative' (n 559); Juul (n 679); Eskelinen (n 680).
[690] With some theorists also noting that there is a third temporal relationship – reading or viewing time.
[691] 'Games Studies 0101: Games Telling Stories? By Jesper Juul' (n 885) citing Bordwell, David: Narration in the Fiction Film. Wisconsin: The University of Wisconsin Press, 1985.
[692] ibid.
[693] Burk, 'Copyright and Hypernarrative' (n 559).

It is clear that the events represented cannot be *past* or *prior*, since we as players can influence them. By pressing the CTRL key, we fire the current weapon, which influences the game world. In this way, the game constructs the story time as *synchronous* with narrative time and reading/viewing time: the story time is *now*. Now, not just in the sense that the viewer witnesses events now, but in the sense that the events are *happening* now, and that what comes next is not yet determined"[694]

As such, at least conceptually, the temporal relationship of player to narrative for video games is not strictly analogous to the relationships found in linear narratives like literature and film. There is a less clear severable and unified narrative which is 'embedded' in the game, which can be abstracted and examined by copyright, and may not necessarily be easily or readily defined separately from players and player performance. As Juul explains, "it is impossible to influence something that has already happened…you cannot have interactivity and narration at the same time."[695] Crucially, for an interactive work the narrative is inchoate, and the player has a completely different relationship to the game compared to the reader in literature. They are simultaneously distinct from the game and part of it. And play a critical role in shaping and structuring the narrative which emerges from their play and performance. Temporally speaking, there is arguably no 'prior' narrative for the game, as the narrative can only exist in the present, during play and performance. This is not to say that narrative structures cannot be applied to video games, but rather, that traditional structures which sever authors from works and works from audiences are difficult to apply if not outright inappropriate for describing the structures and relationships for video games.

For instance, consider the relationship of players and authors in large scale multiplayer open-world games. In these open world games, the "computer game players continually re-write the database as they generate their particular arcs",[696] developing both their own unique narratives as well as changing the overarching worlds narrative and in turn the work. As such, the narrative cannot strictly be defined in relation to the author as the sole arbiter, but instead, is one which stems from both authors and players as

[694] 'Games Studies 0101: Games Telling Stories?' (n 32).
[695] ibid.
[696] Burk, 'Copyright and Hypernarrative' (n 559).

mediated by the apparatus – the game and its database. As such, there is no closed relationship between the author and narrative, and by extension there is no clear point where the narrative can be said to be complete and the work fixed and thus capable of being circumscribed by copyright.

Like with music, the narrative and structure can be seen as temporal structures, as products of time rather than within time. The narrative is dynamic and exists as an aspect of time or a process in time, rather than as a settled narrative, which is created prior, and anchored by some object or tangible artifact. This creates a fundamental challenge for copyright. To recall Rahamatian's earlier observations regarding the temporality of music,[697] copyright deals only with stable works and as such "cannot deal with a temporal structure".[698] The temporal relationship of players-to-narrative in open world games destabilizes the narrative and the work. Forcing copyright to make the same compromise as music, by artificially freezing the work into fixed objects and tangibles, in order to identify the narrative from a contrived object-subject rather than the actual subject itself.

Another similar situation sometimes found in video games which significantly redefines players in their temporal relation to the narrative is where "the audience may re-write narrative relationships as well."[699] Where players can not only write new narratives by progressing through the game, but by using MAP file creators or editors are able to if not encouraged "to externally re-arranging the infrastructure of the game to create new narrative possibilities".[700] For instance, *Duke Nukem* provided players with a map editing tool to allow players to redesign or create their own levels altogether. Challenging the traditional presumption that the narrative is settled prior to audience engagement, and by extension, undermining assumptions predicated on the supposed closed relationship of the author and work. And although some might object here and note that audiences could similarly rearrange the narrative structure of a story by writing fan-fiction, a crucial distinction ought to be made in that fan fiction is altering story-time, *not* the discourse time. Afterall, authors are not generally selling books that come with a pen and tell readers to cross out and rewrite their story. Nor are

[697] See discussion in 4.4.
[698] Rahmatian (n 596).
[699] Burk, 'Copyright and Hypernarrative' (n 559).
[700] ibid.

they telling players to rip out and rearrange pages. Likewise with certain hypernarratives, cybertexts or fractured stories, players are not just invited to change the discourse time, but to direct it. Consider for instance, *Her Story* where the gameplay is essentially a player entering search terms into a database and viewing various videos of a women answering in a police interview. For this game "retrieving information in different ways is part of the game's storytelling, meaning that the order in which players see the actress's responses colors how they view the game's twists and turns"[701], and whilst this is a somewhat simplistic example, it does demonstrate that on a basic level, drawing parallels between mediums even though they may share a narrative purpose can be limited, since the narrative structure may not always be easily or readily transposed from one medium to another. Reiterating that the fixed temporal relationships between author-player-work assumed by copyright, and the presumption that narratives are stable is increasingly untenable for video games. And demonstrating that again, to the extent that copyright approaches narratives like literature, and seeks to identify linear structures and relies on structures and compositions drawn only from tangible properties, copyright will struggle to appropriately describe the unique narrative form available to video games.

5.4.1.3 – Consequences of spatial and temporal non-linear narrative structures

Fundamentally, the problem with non-linear narratives and copyright is ontological. For both temporal and spatial narratives, there is no prior narrative which exists independent to their actualization by audience interaction. For spatial narratives, the narrative is a product of players' exploration through space, and for temporal narratives, the narrative exists as a product of time. For both, the narrative only emerges through experience, is not ontologically prior to play, and there is no fixed sequence in which the narrative unfolds. From this follows several additional problems for copyright. For instance, the open-ended nature of spatially driven non-linear narratives means that identifying the relative importance of narrative 'incidents', plots, or characters becomes a difficult task. Especially if the space which presents itself for exploration includes a variety of different and optional 'features' or 'events' which players can engage with and generate meaning in relation to, and may change

[701] Jensen, Barreto and Valentine (n 670).

depending on the manner or order in which the players engage with the respective plots, events or characters. Trying to identify important and relevant characteristics for copyright analysis becomes further complicated because as products of time and space, there is no fixed object which the narrative can be drawn in relation to, nor established structure for how the narrative develops. For instance, space is the anchor for the narrative, and the discourse is dictated by space as an open-ended concept rather than having a discernible and fixed architecture which can be abstracted from the text and its layout as structured word to word, page to page. Instead of the architecture being defined and outlined in a tangible object, players are presented with a navigable space which not only facilitates open-ended structures, but is altogether intangible. Creating challenges for copyright with its category and object driven framework, and its analysis which tends to identify the work and its characteristics in relation to physical characteristics. Likewise, for temporal non-linear structures, the architecture is ambiguous and contingent on performance for it to come into existence. And for games which facilitate the rearranging of that architecture and discourse, the form and outline of that narrative is uncertain and unpredictable. As such, since copyright must fix works to circumscribe and analyse them, it must artificially crystallize the work and provide only a limited depiction of the narrative.

A further related problem is that to the extent that narratives and the work are drawn and defined in relation to authors, both space and time disrupt the traditional relationship of author-to-work as outlined by copyright. For exploratory games and with fractured stories and with games which allow players to dictate discourse time, the relationship between works and audiences are redefined to provide players with discursive agency in how they explore and experience the narrative, and the overarching architecture and structure becomes dependent on player decisions. Reconfiguring the relationship of players to the narrative and challenging copyright's author centric approach to constructing the narrative and work. Moreover, with certain temporal structures, the audience-work relationships are skewed further, especially in highly open-ended multiplayer online worlds, where the performances of players erode and displace authorial autonomy through their agency. And similarly for games which invite players to either modify the game levels or maps, the assumption that works begin and end with authors becomes increasingly subject to question and criticisms. As such, the non-linear narrative available to video games create several problems for

copyright and its task of identifying predictable and fixed boundaries, as the temporal and spatial driven structures available to video games are difficult to accommodate within copyright's linear narrative models, and which are drawn in relation to tangibles. Like with music and conceptual art, copyright lacks the framework and lexicon to appropriately accommodate the temporal and spatial nature of these structures, and accordingly the analysis developed in reliance on this limited lexicon falls short.

5.4.2 – New tools for creating narrative meaning

As demonstrated above,[702] copyright acknowledges that the works it protects have a value or meaning which extends beyond the creative artifacts which copyright concerns. Meaning which is created through the conventions applied in a work, or for copyright, as anchored in its expressions. What that meaning precisely is however, is not necessarily clear. It might refer to facts and information in literary works, harmony for musical works, or aesthetic and visual effects in an artistic work. However, copyright is fairly overt in protecting narratives and narrative meaning. Either in its approach to textual analysis,[703] or with its emphasis on narrative characteristics when examining works which share narrative characteristics and function like film.[704] Like film, video games are literary and narrative adjacent, they are creations which sometimes tell stories, that have narratives and in turn create narrative meaning. However, besides having unique structures which shape and frame the presentation of narratives, digital media also affords video games various tools and methods to create narrative meaning in entirely new and different ways. These various tools and the ways they create narrative meaning present several problems and new challenges for copyright. Primarily because copyright tends to anchor narrative meaning through textual and literary conventions, whereas video games can leverage interaction to create narrative meaning in ways unanticipated and difficult to accommodate within copyright's literary driven lexicon and through the assumptions developed from that lexicon. For instance, copyright's emphasis on text and textual conventions as sources

[702] See discussion in 5.3 – Terminology and Concepts.
[703] With the narratological analysis applied in Ravenscroft, (see 4.2) or with the reference to plots and narratives in software cases such as Navitaire and Micro star in discussing code. (see 3.5.3 and 4.2 respectively).
[704] See discussion on Norowzian's in 1.5.

of narrative meaning is limited in discussing space and exploration as sources of meaning. Likewise, the ways which games can leverage mechanics and use non-literary conventions to generate narrative presents difficulties for copyright owing to its reliance on literary conventions for describing narratives. And similarly, agency is a unique tool which facilitates the generation of narrative in ways which are difficult to replicate and accommodate through traditional narrative media, especially non-interactive literary media that define authors as sole sources and arbiters of meaning and expression.

5.4.2.1 – Game-Spaces

Space in games can not only be understood as a structural architecture for shaping game narratives, but also as a source of narrative meaning in of itself. Space is one significant way in which games can be distinguished from other "screen-based representational practices"[705] as they are not only concerned with representational methods to convey meaning, but facilitate meaning making through exploration and experience. Compared to authors in traditional media, they do not simply tell you stories, but they design worlds, experiences which audiences are invited to engage with and from that realize the narrative. As such, unlike most traditional media, game spaces are neither static nor necessarily readily fixed to a single instantiation, and by virtue of their interactivity, become the product of circumstance, and contingent on audience's play and navigation. However, both the dynamism and interactivity of video game spaces present difficulties for copyright. Specifically, the issue for dynamic spaces is that static image and discrete screen-based representations provide only a partial and limited depiction of the space, and as copyright is designed only to address static spatial representations, it is difficult for it to appropriately accommodate and assess dynamic spaces sometimes found in video games. Likewise, copyright has been developed for discrete representations of visual space rather than conditional and malleable virtual space, and as such reactive and interactive environments are difficult to reconcile with copyright's static, author and object-oriented framework. These difficulties with dynamic space and interactive spaces will be elaborated on and discussed in turn.

[705] Huber (n 654).

5.4.2.1.1 – Dynamic Space

For the purposes of the present discussion, two aspects of dynamic space will be focused on, the indeterminate nature of space, and the indeterminate nature of perspective. The indeterminate nature of space refers to the uncertain topology, geometry or 'geography' of certain video games,[706] and the variability of environments including the mobility objects and characters within that environment.[707] As Vara, Zagal and Mateas suggest, the classification of game space can be separated into two types by virtue of its "topology"[708] or "topography"[709], as being either discrete or continuous.[710] For instance *Chess* and *Candy Crush* are games with discrete topology, as they have discrete, and definitive layouts, and as such the "actions of the avatar or player-token occur in certain positions in space".[711] In contrast, for games with a continuous topology, the player avatar can be described as having "continuous freedom of movement".[712] Movement which can be multidirectional and as such affords millions of potential permutations of movement and relative positions of players to the game world or environment. Examples of this might be *Quake*, which can still have relatively fixed boundaries within the 'arena' of play,[713] or expansive open world games like *Red Dead Redemption* which facilitate unfettered free roaming movement.[714]

Besides the player-character, the environment itself and by extension the characters and objects which form that environment can also be mobile. Which can similarly form part

[706] Leandro Ouriques, Geraldo Xexéo and Eduardo Mangeli, 'Analyzing Space Dimensions in Video Games' (2019).
[707] Huaxin Wei, Jim Bizzocchi and Tom Calvert, 'Time and Space in Digital Game Storytelling' (2010) 2010 International Journal of Computer Games Technology 1.
[708] Ouriques, Xexéo and Mangeli (n 710).
[709] Espen Aarseth, Marie Smedstad Solveig and Lise Sunnanå, 'A Multidimensional Typology of Games', *Proceedings of the 2003 DiGRA International Conference: Level Up* (2003) <http://www.digra.org/wp-content/uploads/digital-library/05163.52481.pdf>.
[710] Clara Fernández-Vara Clara, José Pablo Zagal and Mateas Michael, 'Evolution of Spatial Configurations In Videogames', *Proceedings of the 2005 DiGRA International Conference: Changing Views: Worlds in Play* (2005) <http://www.digra.org/wp-content/uploads/digital-library/06278.04249.pdf>.
[711] Ouriques, Xexéo and Mangeli (n 710).
[712] Aarseth, Smedstad Solveig and Sunnanå (n 713).
[713] ibid.
[714] Ouriques, Xexéo and Mangeli (n 710).

the dynamic nature of space. Crucially, the mobility afforded to these non-playable characters and objects can carry implications for the narrative construction. Since in certain games, depending on where, when and how players interact with these mobile characters, there are implications for the narrative unfolds. These "characters play the same role as other environmental objects. When players interact with these characters, the plot can change locally."[715] On a basic discursive level, this could refer to the variability of random encounters, and how those random encounters might structure the overarching narrative.[716] However, there can also be potential diegetic consequences, changing not just the structure, but the narrative itself. Examples of this include games with 'honor systems' or 'moral systems', which can localize narrative shifts as a result of player interactions, and correlate player actions to environmental responses within the game space.[717] For instance, the actions of the player in *Fallout* can lead to players being ostracized from areas, or lead to locations made accessible depending on the behaviour and choices made by player.[718] Resulting in a narrative that is contingent on and contextualized by a player's movement, location and the related interactions made preceding to or within it. As such, the narrative becomes variable and uncertain, as it is dependent on the available or unavailable space for the narrative to develop and evolve. An uncertainty which is difficult to reconcile with copyright's assumption that works and associated narratives are stable and linear.

Game spaces can also be understood as dynamic by virtue of procedure. For example, dynamic spaces can be engineered through a "procedural simulation – an open-ended virtual world containing a collection of independent elements, such as objects, environments, and…autonomous agents, e.g., NPCs".[719] Crucially, the simulation

[715] Wei, Bizzocchi and Calvert (n 711).
[716] For instance, see the discussion of anxiety through unpredictable structure and randomised movement in Bartosz Dudek, 'A Sense of Fear and Anxiety in Digital Games: An Analysis of Cognitive Stimuli in Slender -- The Eight Pages' (2021) 21 Game Studies <http://gamestudies.org/2102/articles/dudek> accessed 18 April 2022; Joris Dormans, Relatedly, it has been argued that random encounters can work to destabilize the central narrative and the autonomy of the primary narrative author – the game master, in tabletop RPG games, see 'On the Role of the Die: A Brief Ludologic Study of Pen-and-Paper Roleplaying Games and Their Rules' (2006) 6 Game Studies <http://gamestudies.org/0601/articles/dormans> accessed 18 April 2022.
[717] Marcus Schulzke, 'Moral Decision Making in Fallout' (2009) 9 Game Studies <http://gamestudies.org/0902/articles/schulzke> accessed 18 April 2022.
[718] ibid.
[719] Michael Mateas and Andrew Stern, 'Integrating Plot, Character and Natural Language Processing in the Interactive Drama Façade' (2003).

involves a degree of variance, since "each element maintains its own state and has procedures governing its behavior – the different ways it can act upon and react to other elements in the world"[720] and as such, there is no explicit structure or discrete narrative per se. The narrative becomes contingent on the manner in which players elect to explore and engage with the space.

Moreover, the space or environment of a game might not only be dynamic in of itself, but can also be described as dynamic where the perception and appreciation of space is contingent on indeterminate viewing perspectives. As Nitsche suggests: "Most large-scale virtual spaces can be perceived only partially at any moment. A complete representation of the whole space is not possible or necessary."[721] There are two reasons for this, firstly, the point of view or frame of reference may not necessarily fully and comprehensively depict the entire game-space. Especially for games which can be described as 'continuous', a given frame is unlikely to be fully representative of the entire virtual environment or gameworld. It provides a specific representation of a specific instance at a specific location at a specific time. In that sense, the frame in a video game is not dissimilar to the frame of a film. However, there are other crucial differences which distinguish the importance of that frame relative to the whole subject. Firstly, whilst that frame or a series of frames in succession can be visually appreciated, for video games, optic appreciation is insufficient. A point which will be revisited shortly in discussing exploration as an interactive tool for narrative comprehension. Relatedly, the presentation of space through the screen of a video game differs to the presentation of space through the screens of cinema. Specifically, the nature of the camera, differs between films and games, where the former is more concerned with representation, and the latter more with exploration. "In films, the view is constrained by the laws of optics and physics; in games, the view is computational and dynamic."[722]

As such, the camera and its visual perspective serves different purposes. Whilst the primary function of the camera in film can be described as representing and presenting space, the primary function of the camera in video games is to mediate space. For

[720] ibid.
[721] Michael Nitsche, *Video Game Spaces: Image, Play, and Structure in 3D Game Worlds* (MIT Press 2008).
[722] Wei, Bizzocchi and Calvert (n 711).

unlike film, video games facilitate audience participation within the represented space, and players are presented with the opportunity to guide their optic and visual experience. "On the one hand, the game space is presented by the camera not unlike in film…On the other hand, this virtual world is not the slave of the image. Players are free to explore and interact with it directly."[723] As a result, the function of the 'virtual camera', and the importance of a given visual perspective changes in the context of video games. As Nitsche explains: "Virtual camera implementation has to take the specifics of interactive game spaces into account. Often, the virtual camera is not the single fixed viewpoint to an event but one option among a range of different perspectives."[724]

Accordingly, objects, events and spaces are not limited to a single perspective, or an individual frame per se. Instead, they might be the product of several points or frames of reference, and the space becomes informed by a variety of visual depictions established through a series of different angles and vantages amongst other perceptual qualities. For video games, there may not be a sole visual perspective which readily correlates to a sole narrative perspective. As such, copyright reification practices which seek to fix the visual perspective to discrete or precise instances are arguably incorrect starting points for the analysis of the visual practices in video games. Reiterating the difficulties discussed in Chapter 2 concerning the emphasis on visual qualities when examining video games, with the absence of formal protection and categories, copyright is left to apply rhetoric and assumptions from other forms of media which do not correctly correspond to video games as a distinct media.

Consider for instance the analytical approach taken in *Nova v Mazooma*,[725] where to the extent that video games are dissected and treated as graphic works, they are left to be assessed by reference to individual stills and static frames. Therefore, the dynamic visual properties of video games become impossible to accommodate, as their formal appreciation in practice – as mobile visuals understood through gameplay, is incompatible with copyright's formal treatment of graphic works – as static and visually representable objects. Equally, even for jurisdictions which have more open

[723] Nitsche (n 832) pg 85.
[724] ibid pg 90.
[725] *Nova Productions Ltd v Mazooma Games Ltd and others* (n 261).

categories like ‘audiovisual works’, the inherent filmic biases in defining audiovisual works, which describe audiovisual works as “a series of related images which are intrinsically intended to be shown”[726] creates difficulties. The reduction of a game’s visuals to a series of images or frames nonetheless perpetuates traditional copyright assumptions about how the work is perceived and appreciated – as discrete and fixable in objects. And it is not obvious how video games which concern inchoate and dynamic space, and involve the presentation of events from multiple differing visual perspectives, can be accommodated by a definition that is predisposed to identify fixed and discernible representations of space. This is not to say that analysis borne from film conventions or conventions from traditional visual media are wholly inappropriate, but rather that they are limited. In any event, the fact that copyright in general is predominantly concerned with static objects and therefore static representations that reside in those objects, means that copyright’s designated visual and artistic properties will be reductive for the purposes of understanding video games as a spatially driven visual media. Likewise, copyright’s analysis which begins with static representations for assessments of scope and infringement proves inadequate, since dynamic space is poorly described by fixed representations, and accordingly the fixation by copyright will be arbitrary and contrived. Related to this is a further issue, which is that spatial perception in video games is not strictly a product of ‘optical’ appreciation or how that space is ‘shown’, but also a product of exploration and interaction within space.

5.4.2.1.2 – Interactive Space

Besides strict visual appreciation of space in video games, space is also a product of interaction, exploration, and navigation, within which narratives develop. For instance, narrative meaning can stem from a player’s experience of and performance within a game-space, or it might be left for players to infer through exploration. The inference here ought also to be distinguished from traditional narrative, where the task of inferring comes from the deliberate lack and obscuring of information, which eventually is conveyed to audiences. As Jenkins explains:

[726] 17 U.S.C. § 101.

"Narrative comprehension is an active process by which viewers assemble and make hypothesis about likely narrative developments on the basis of information drawn from textual cues and clues. As they move through the film, spectators test and reformulate their mental maps of the narrative action and the story space."[727]

Contrasting this with games, where:

"players are forced to act upon those mental maps, to literally test them against the game world itself. If you are wrong about whether the bad guys lurk behind the next door, you will find out soon enough - perhaps by being blown away and having to start the game over."[728]

The critical distinction is that for narrativized space, the comprehension of that space stems from active participation within the experience. It goes beyond presentation and description and requires navigation and interaction by players in order to fully appreciate the narrative contexts which the space expresses. "Navigation is more than merely getting from one place to another; it is a cyclical process which involves exploration, the forming of a cognitive map of how spaces are connected".[729] This key differences sets video games apart from traditional literature and narratives, whilst space in linear literary narratives are the product of literary descriptions and expressions, space in video game narratives is the mode of expression itself. For instance, Salen and Zimmerman have discussed how navigable space can provide interpretive contexts for constructing the narrative. Arguing that: "In both *Tekken* and *Quake*, a player's 'position on the grid,'…is simultaneously a location in the space of the game and a position within the space of the game narrative".[730] Explaining that the constrained space of *Tekken* means that fighters have limited mobility, and accordingly the design of the space encourages combat and structures the conflict. Whereas "[i]n contrast, "the corridors and rooms of a *Quake* deathmatch space create a narrative of

[727] Kathryn Yu, 'Evocative, Enacted, Embedded & Emergent: Narrative Architectures for Immersive Storytelling' (*Medium*, 24 June 2020) <https://noproscenium.com/evocative-enacted-embedded-emergent-narrative-architectures-for-immersive-storytelling-c0e740528184> accessed 9 September 2021.
[728] ibid.
[729] Mark Wolf, 'Theorizing Navigable Space in Video Games' [2011] DIGAREC Series 18.
[730] Salen and Zimmerman (n 672).

stealthy manoeuvres, mad dashes to grab power-ups, and the surprise of sudden death."[731] As such, they stress that interactive space is also narrative space, an environment which provides a context for interpreting the narrative of the game. A context which is contingent on the nature of the space provided and the type of spatial navigation it affords. Salen and Zimmerman have also suggested that the exploration of space can provide evocative context for constructing narrative meaning. To illustrate this, they discuss how *Asteroids* utilizes movement to express and evoke the narrative characteristics of space as open and expansive, observing that "[r]ather than bouncing off the screen wall like a *Pong* ball, the player's ship moves right on through to the other side, evoking the illusion of endless movement through the darkness of space."[732] Observing that narrative comprehension of the 'storyworld' of *Pong* is informed or enriched through the manner in which players navigate and make sense of the game space. As such for games, appreciation of the narrative involves more than literary competencies, but involve performative and exploratory competencies as well. Without the proactive interaction on the part of players, there is no full comprehension of the narrative that is being presented, to reiterate, players are not only invited to form 'mental maps' of the narrative, but to test and act upon them.

Space can also be an important tool in the structuring or framing of narrative meaning. Spatial structure here referring not only to how narratives are structured within space per se,[733] but also the *way* that spartial structures can be used to create or contextualize meaning. Alternatively put, spatial structures have rhetorical and expressive potential. To illustrate this, Wei, Bizzocchi and Calvert's discussion of the use of space and spatial oppositions in *Assassins Creed* is helpful. They contend that spatial oppositions "can be endowed with meanings or experiences,"[734] and note how the contrast of the rooftop space versus the ground-level space in *Assassins Creed* operate to structure the story world of the game. Arguing that the layout and available navigation in each respective space presents distinct ways for players to adjust the pacing of their play. To elaborate, players are able to roam more freely on the rooftops, rapidly traversing and navigating the world through acrobatics manoeuvres, whereas on the ground, players

[731] ibid.
[732] ibid.
[733] See discussion above in 5.4.1.1 – Non-Linear structure and space.
[734] Wei, Bizzocchi and Calvert (n 711).

must adjust their pacing and move more cautiously and slowly lest they be caught by guards. As such, depending on the approach to navigation that players employ, the overarching narrative of movement and progression through the story shifts.

Conversely, Nitsche has suggested that restricted paths can work to generate narrative expression. Explaining that movement restrictions can work as "valuable structural directives". Citing Kryzwinks, Nitzche argues that: "through the juxtaposition of being in and out of control, horror-based videogames facilitate the visceral and oscillating pleasures/unpleasures of anxiety and expectation… the same basic juxtaposition is at work in *Medal of Honor*"[735] Explaining that the restrictions on movement through landmines, explosions or fog represent valuable structural tools for constructing the overarching narrative of the gameplay experience. As such, freedoms or restrictions on movement and navigation are can be understood as useful tools for communicating narrative meaning and present authors with unique conventions for expressing stories in ways unavailable to traditional literature.

A distinctive feature then of space in video games is that fundamentally, they are contingent on experience. Game-space as a narrative device cannot strictly be appreciated by virtue of how it is visually presented but requires exploration in order to achieve comprehension. Players must "become experientially immersed in their logic".[736] This presents a significant if not fundamental obstacle for copyright. To the extent that the narrative cannot be treated as representable, and is understood as a product of process, function or rules associated with it, copyright has limited solutions for assessing game-spaces as components of the narrative. Not only must copyright overcome presumptions against functionally dictated or rule driven expressions, but there is no obvious anchor for space as a property which is navigable, explorable and interactive within copyright's framework. For the most part, space can be understood as being drawn in relation to how it is described in text, as a literary work, or through representations of space through artistic works, or as recorded in film and other visual media. But navigable space as an intangible and functionally driven or rule driven

[735] Nitsche (n 725).
[736] ibid citing Ted Friedman, 'Making Sense of Software: Computer Games and Interactive Textuality' in Steven Jones (ed), *CyberSociety: Computer-Mediated Communication and Community* (SAGE Publications 1995).

property has no corresponding category that appropriately describes its expressive potential as outlined above. At best and assuming the presumptions against function and rules can be sidestepped, the code which rules how space might be navigated could be a way to conceptualize the narrative conventions in game-space. However, that still remains fairly limited since the nature of narrative analysis in copyright is essentially literary or dominated by literary conventions, as evidenced by the emphasis on literary plot in discussing *Navitare*[737] or the narrativist approach adopted in *Ravenscroft*.[738] Equally, the intersection of space and narrative similarly presents difficulties for copyright since generally, narratives are drawn in relation to textual and literary representations of narrative. Though films can leverage visuals for narrative purposes, copyright's object-oriented analysis tends to preclude such approaches, preferring to assess visuals through the material objects within which they reside. Their tangible representations ultimately take precedence over their expressive potential, and therein lies a fundamental shortcoming of copyright's approach to assessing works. The aforementioned observed difficulties for copyright in assessing the performative aspects of music and conceptual art are thus similarly relevant for video games. As Wolf contends:

"Space is understood best through movement, and complex spaces require not only movement but navigation. The theorization of navigable space requires a conceptual representation of space which is adaptable to the great malleability of video game spaces"[739]

And as such, because copyright is preoccupied with crystalizing performance into an object or a static representation, it is fundamentally incapable of adequately conceptualizing the relevant expressive features of space that stem from movement and performance in space. In assessing the narrative potential of video games, copyright's literary analysis is insufficient because the emphasis it places on text precludes the myriad of other non-literary narrative devices which operate within game spaces. Equally, relying on other categories to compensate for the shortcoming of textually driven literary analysis is likewise unhelpful since as discussed, copyright

[737] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).
[738] *Ravenscroft v Herbert* (n 109).
[739] Wolf (n 733).

fundamentally concerns fixed objects. The inherent ambiguities which stem from the indeterminate nature of game-space is difficult for copyright to accommodate, because in order to make the dynamic features of space amenable to protection, they must be artificially localized into some fixation or artifact, which at best may only represent an instance of that dynamic game-space, rather than the game-space in toto.

5.4.2.2 – Mechanics

Another tool unique to video games which can lend to the construction of the narrative is mechanics. When most video game players refer to mechanics, they are often using the word to refer to several different concepts, including for instance, what players can do, gameplay, processes, or specific game functions. For the purposes of this chapter and section, the definitions of mechanics applied follows that outlined by Frasca. Referring to the "group of regulations in play and games",[740] or alternatively put, "the procedures through which something is done or manipulated".[741] In that sense, many of the aforementioned concepts can be similarly subsumed into this definition, especially since latent in Frasca's definition is his emphasis on rules. Rules not strictly in a legal sense, or in terms of what the games Terms of Service might outline, but rules more broadly constructed. Dictating what can be done, what cannot be done, or how something is done. Therefore, concepts such as can players do x, and how does the game respond to y, can be subsumed into this broad category of mechanics or rules. Similarly, mechanics can thus also be understood or framed as relating to functions, privileges, limitations, restrictions and restraints. All various concepts which again can be described by rules as such.

The issue for copyright with mechanics then is the underlying biases and assumptions which copyright makes relating to rules, function and rule-like expressions. As discussed in chapter 2, copyright precludes from its remit expressions which it treats as functionally dictated, which it therefore deems as non-expressive for the purposes of copyright. In doing so, it also tends to emphasize narrative characteristics when assessing video games and severs mechanics from its construction of the narrative

[740] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[741] ibid.

work. However, as has been suggested, the procedural nature of mechanics or rules does not necessarily mean that they are functionally dictated or cannot reflect the expressive creativity of an author. Moreover, it is argued that relying strictly on traditional literary or representational narrative expressions is inappropriate for assessing the narrative of a video game.

For instance, by leveraging game mechanics, game designers are able to frame or create narrative meaning and one way to do so is through constraints on function. For example, Laurel outlines various kinds of constraints, explicit, implicit, extrinsic and intrinsic. For the purposes of video games, explicit constraints are generally going to be those which can be viewed as external to the 'gameplay' itself, for instance, menus as part of the user interface. Implicit constraints are the rules which operate within the game or 'system' itself, the example Laurel provides for instance is that "in most combat-based action games (FPS), it is not possible to negotiate with the enemy".[742] This of course generally not made explicit, nor is it often communicated to players by way of representation, but by exploration and experience. There are then extrinsic constraints, which are the limitations of what not to do that are not primarily concerned with the context of the game or what players are seeking to do within the game. As Laurel explains, "avoiding the "reset" and "escape" keys during play of a game has nothing to do with the game world and everything to do with the behaviour of the computer."[743] Interestingly, there are ways in which an extrinsic constraint can be internalised into the game, again as Laurel elaborates:

"extrinsic constraints can be made to appear intrinsic when they are expressed in terms of the mimetic context. If the "escape" key in a game is identified as a self-destruct mechanism, for instance, the constraint against pressing it in the course of flying one's mimetic spaceship is intrinsic to the action."[744]

This is not the only way in which extrinsic constraints can be incorporated however, for instance, one approach from *Hellblade: Senua's Sacrifice* provides an interesting example of how an extrinsic constraint can be leveraged to create narrative meaning.

[742] Laurel (n 30).
[743] ibid.
[744] ibid.

Where the game begins with a warning that the game implements the 'permanent death' mechanic, where too many deaths will end the game and delete all save progress. Explaining that the 'rot' which afflicts the main character will grow with each player's failure, and that "If the rot reaches Senua's Head, her quest is over. And all progress will be lost".[745] This however, is not true, it's a bluff, and there is in fact no 'perma-death' in the game. The decision to explicitly outline this 'extrinsic' constraint however is not superfluous. There is a deliberate and narrative purpose behind this. As Meakin, Vaughan and Cullen explain:

"The function of the lie is, conceding to the essential artifice of videogame simulation, to pull the player into the same nervous paranoia that afflicts Senua…This synthesis of gameplay and narrative achieves this by using the distance between Senua and the audience to draw them closer. The audience learns very quickly that though the enemies are figments of Senua's imagination, they are a true threat to her. Now, with the risk of permadeath hanging over their heads, these enemies are also a real threat to the player. The fact that this is not true just makes it all the more poetic. The audience is ensnared through the mechanisms of pity and fear"[746]

Constraints are not the only way in which *Senua* leverages mechanics to create narrative meaning. Meakin, Vaughan and Cullen observe that whilst the mechanics are not particularly unique within the genre, they thematically match well with the narrative. Arguing that:

"[T]he increased competency of the player of course translates into increased competency by Senua. While the game may not offer players opportunities to interact with the games story directly, it does indirectly allow for the knowledge acquisition of the player to be mirrored by Senua's interactions with the world. This may seem an incidental detail, but given that the game is about Senua's increased competency due to her perseverance in the face of adversity we can see this as an important transformative element…[As] Senua investigates the events of her past to move forward into the

[745] 'Hellblade: Senua's Sacrifice on Steam' <https://store.steampowered.com/app/414340/> accessed 9 September 2021; 'Hellblade's Permadeath Bluff Is "Not as Simple as People Think"' (*PCGamesN*) <https://www.pcgamesn.com/hellblade-senuas-sacrifice/hellblade-permadeath-fake> accessed 9 September 2021.
[746] Meakin, Vaughan and Cullen (n 31).

future. The verbs of action are all transformed through the acquisition of knowledge showing that this is the critical momentum of the narrative."[747]

As such, Meakin, Vaughan and Cullen contend that the game emphasizes the importance of both understanding the narrative conventions and the played system – through its mechanics - to make sense of the narrative as a cumulative whole. Stressing that the play is not distinct or a barrier to narrative, but a tool to which directly establishes the narrative and its expressions. Like with game-spaces then, a comprehensive construction of the narrative requires appreciation beyond the narrative text. It stems from players' active participation within the game and in the same way that comprehending game-space requires players to act upon their mental maps of the game-space, to fully comprehend and appreciate narratives, the mechanically driven performance by the player is essential as well. As such, for works which significantly rely on mechanics in creating narrative expression, a literary driven approach can only partially describe the overall narrative.

Senua is not an isolated example of this, and a similar synthesis of narrative and mechanics can be identified in the game *Portal*, where the eponymous portal mechanic represents a crucial conventional tool for constructing and interpreting the narrative. Specifically, Burden and Gouglas have noted how the mechanical limitation on the portal gun, a tool which ostensibly lets players freely move through space by opening connected portals, but only on a particular surface found within the test chambers represents a particular irony. One which provides an "emotional resonance between Chell's suffocation in the workings of the system and the player's own frustration in moving through the game."[748] The limitation of the protagonists freedom is one which is identically mirrored for the players own experience of the game. The rules of the game portal and the portal gun provide a procedural experience, one which can be used to punctuate the narrative and context which concerns the protagonist within the game. *Senua* and *Portal* demonstrate then that mechanics as conventions have significant potential as expressive tools, and indeed are not necessarily functionally constrained in the way that copyright so frequently describes rules, systems and procedures. But

[747] ibid.
[748] Michael Burden Gouglas Sean, 'The Algorithmic Experience: Portal as Art' (2012) 12 Game Studies <http://gamestudies.org/1202/articles/the_algorithmic_experience> accessed 3 December 2021.

again, it is not clear whether copyright can or will seek to protect such expressive conventions notwithstanding their importance within the medium. Indeed the current emphasis on identifying narrative characteristics and emphasizing them over play, as has been done in *Amusement World*,[749] and *Spry Fox*[750] heavily suggests that copyright will continue such an approach and divorce the mechanics from the narrative despite the two being intertwined. A related question then becomes what if there is no clear literary narrative to dissect from the mechanics?

Consider for instance the musical game *Proteus*. There is very little explicit, or overt narrative, and whilst one might seek to identify a narrative from its representational aspects, such as the changes of seasons and the visuals which follow it, such a construction is a tenuous one if at all. Jensen, Barreto and Valentine however propose an alternative approach to constructing the narrative, centring it on the mechanics of the game they explain that:

"the environment and its exploration are all linked to a central mechanic: the player generates the music and sounds in the game by exploring the environment…Everything and place on the island emits a tone, pulse, or synth pad, so the player's movement creates the soundtrack to the game, making each play-through slightly different. One might even argue that the emotions of the narrative are partially told through the music and sound of the game, as there is no dialogue in *Proteus*"[751]

This is admittedly an obscure example, but it demonstrates the core problem for copyright. In the absence of a literary narrative, copyright has limited resources for constructing the other narrative and non-narrative conventions within the subject, especially where it limits itself to the traditions of the categories that it outlines within its scope of protection. As demonstrated with the discussion in 5.4.2.1 on the limitations of film rhetoric and visual perception for understanding game-spaces, although conventions from other categories might be applied to try better make sense of the non-literary narrative expressive properties in video games, parallels cannot always be successfully drawn. Especially if the non-literary expressions lack a fixed and

[749] *Atari, Inc v. Amusement World, Inc* (n 273).
[750] *Spry Fox v. LOLApps* (n 348).
[751] Jensen, Barreto and Valentine (n 670).

represented object which presents itself for analysis, and instead are drawn in relation to ephemeral experience. And if the borrowed rhetoric does not correspond to how the relevant conventions and properties are understood and defined through game studies discourse, it seems arguable that the depiction of the work is limited and inaccurate. Likewise, it seems questionable that copyright applies presumptions about function and rules which are at worst incorrect and at best inappropriate in the context of mechanically driven narratives in video games. Relatedly, is copyright correct to divorce mechanics and story if doing so disconnects itself from a medium where the associated disciplinary analysis does not take that approach? How can copyright accommodate games like *Senua* which seek to significantly intertwine mechanics and narrative?

5.4.2.3 – Agency

Another way in which narrative meaning might be developed is through agency. As noted in the discussion of agency in section 2.2, agency essentially refers to 'player participation', and to reiterate, agency is a matter of degree. For example, open-world online games where players are constantly rewriting the database and affecting the environment in their participation in the gameworld can be described as games with having higher degrees of agency.[752] Whereas for games with lower degrees of agency, the participation might be described as "mere interface activity",[753] where all players can do is 'twiddle buttons' and the overall work does not change. The extent and nature of agency afforded to players informs the extent which a work might create problems for copyright. Specifically, works which enable proactive participation and have meaningful agency that facilitate an objective impact rather than subjective impact on the work, are the kinds of works which create more difficulties for copyright.

In that sense, a further distinction which might help clarify problematic works is between works that are lisible or scriptible. The former refers to works that are closed, and therefore finished, the latter referring to works that are open-ended and require

[752] See 5.4.1.2 – Non-Linear Structure and Time.
[753] Michael Mateas, 'A Preliminary Poetics for Interactive Drama and Games' in Noah Wardrip-Fruin, Pat Harrigan and Michael Crumpton (eds), *First person: new media as story, performance, and game* (MIT Press 2004).

readers to supply meaning.[754] The difference between these two classifications is not necessarily one between analogue and digital, however, digital media arguably better facilitates scriptible works. This is because for certain digital creations, the freedom afforded players to interact with the work rather than within it, may mean that "every engagement with the text becomes a new work, generating variations on the basic narrative supplied by the code".[755] Interactive or highly interactive video games can thus be described as scriptable, where the work can be understood as inchoate, 'scripted' in part by the author, but awaiting performance of that 'script' by players in order for the work to be comprehended or concluded fully. For the purposes of discussing narrative expression, there are two related consequences of this, firstly, "this interactivity creates a new relationship of narrative consumer to narrative space"[756], which accordingly presents a distinct author-work-audience relationship, one which is difficult to conceptualize within copyright's strict author-work paradigm. Secondly, "[d]irect interaction with the narrative, rather than observation also heightens the immersion the player has with the game and the narrative".[757] Doing so in a way which enables an immersive experience, and an approach to expressing the narrative which is not easily accommodated by copyright's descriptive and representational models of expression. This latter consequence of agency – which facilitates immersion within narratives will be addressed first.

Agency driven narrative immersion is not immersion in a traditional and representational sense. For instance, well written prose, or aptly put together audio-visuals might enhance immersion in a literary narrative or film scene, but the immersion afforded by agency goes beyond that. The sense of immersion is better understood as being "feeling physically located, connected with on-screen others, and personally involved, respectively."[758] Consider again the example of *Portal*. There is a pivotal point in the game where the antagonist GLaDOS reveals that the Chell and the player have fulfilled their purpose as test subjects and leaves them on a sliding platform

[754] Burk, 'Copyright and Hypernarrative' (n 780) citing Barthes (n 496).
[755] Burk, 'Copyright and Hypernarrative' (n 559).
[756] Stobbart (n 31).
[757] ibid.
[758] Sandy Baldwin, Nicholas Bowman and John Jones, 'Game/Write: Gameplay as a Factor in College-Level Literacy and Writing Ability' in Lucas John Jensen and Keri Duncan Valentine (eds), *Examining the Evolution of Gaming and Its Impact on Social, Cultural, and Political Perspectives* (2016).

to be incinerated. There is a wall which can be used by the player to generate a portal and used to escape and survive, however, its existence is not explained or made clear to the player, and responsibility falls on the player to notice and recognize their salvation. As Burden and Gouglas stress:

"Unlike a film, a videogame can create a story that requires the player to act, to instantiate Chell's desire to stay alive. The gun stops merely opening portals into other test chambers. The player takes the initiative without knowing what the goal is. Self-reflexively, the game cedes narrative control to the player, demonstrating the power of the videogame medium".[759]

What *Portal* demonstrates is the specific affordance of video games as a medium to leverage agency and participation in generating the narrative of the game. The emotional resonance and the context of the story becomes one which is not merely presented to players but experienced by them and facilitated through play and performance. The player's connection with the narrative is in a sense far deeper, not merely as observer, but as actor, for the meaning being conveyed is through the player's own experience, rather than a representation of experience communicated to the player. This is the fundamental distinction between traditional narratives and agency driven narratives. As Juul argues "Narratives are basically interpretative, whereas games are formal. Or, in cybertextual terms, stories have an interpretative dominant, whereas games have a configurative dominant."[760] In the same way that observation alone does not characterize the comprehension of game-space, interpretation alone does not describe the comprehension of the narrative for video games. With video game narratives, the story is not only interpreted by audience, but is configured and derived from their actions. Narrative comprehension involves active participation and deliberate application of their agency by players in order to fully appreciate and make sense of the narrative.

As such, *Portal* is an excellent example of how the interpretive and configurative can be simultaneously leveraged to create an expressive artefact for players. There are the

[759] Gouglas (n 752).
[760] 'Games Studies 0101: Games Telling Stories?' (n 32).

traditional narrative interpretative conventions which might ordinarily be found in science fiction stories concerning "the machine gone mad",[761] however, these are compounded with configurative conventions, and force players to actively participate and create meaning. Much like how with mechanics, the limitations facing the protagonist carry over to the limitations for players (through the rules and mechanics of the portal gun), with agency, the players decisions are reflected onto the character. The desire and choice to find a way to survive translates from player to character. Meaning becomes bilateral. Thus, narrative expressions and meaning can be defined both in relation to the represented narrative, be it audiovisuals or dialogue, as well as in relation to the player and their performance. The narrative can be understood as both a product of interpretation, like with traditional narratives, and a product of configuration, which facilitates expression through action and players.

And for video games that are more scriptable, the narrative potential of configuration can be leveraged even further. For instance, in games where player decisions can carry consequences or players have to make 'moral choices', choices such as kill or spare, steal or leave, those choices and consequences bind both the player and character, shaping the ultimate narrative arc that the protagonist and player experience.[762] The narrative immersion thus is not only amplified by echoing player's decision with the protagonist's actions, but in a sense redefined altogether, since by ceding narrative control to players, the immersion can be more understood as participatory rather than vicarious. The consequences which face the protagonist are quite literally the consequences of the player's actions, they are a direct reflection of the player's own decisions.

As such, agency provides "potentially fruitful modalities of expression",[763] it facilitates a unique immersive approach to engineering narratives that in turn enables distinct

[761] Gouglas (n 752); Anya Heise-von der Lippe, 'Still Alive: Understanding Femininity in Valve's Portal Game', *Still Alive: Understanding Femininity in Valve's Portal Game* (University of Wales press 2017); Ásta Karen Ólafsdóttir, 'The Heroic Journey of a Villain: The Lost and Found Humanity of an Artificial Intelligence' (2017).
[762] For further discussions on moral games and morality systems see 'Game Studies - Moral Decision Making in Fallout' <http://www.gamestudies.org/0902/articles/schulzke> accessed 3 December 2021; Michael Heron and Pauline Belford, 'It's Only A Game: Ethics, Empathy and Identification in Game Morality Systems.' (2014) 3 Computer Games Journal; Jensen, Barreto and Valentine (n 894) discussing Undertale and Knights of the Old Republic.
[763] Baldwin, Bowman and Jones (n 762).

conventions for expressing meaning. In particular, it does so by drawing the narrative in relation to a player's experience and performance, rather than being defined solely in relation to the 'audio-visual narrative' of the game. The agency afforded to players and the decisions made within the game serve a critical narrative purpose, creating a different relationship of audiences to the narrative and work than in traditional narrative media. This relationship is difficult for copyright to properly assess, since it assumes that video games are like traditional media where audience participation is strictly interpretive. Copyright's literary driven approach to analysis presumes that the narrative and the associated expressions are discernible from the 'text' in a vacuum and independent of player supplied meaning, and treats the conventions, expressions and properties as fixed. Copyright follows traditional literary analysis, and treats interpretation as beginning and ending with the authored text. As such, copyright cannot make sense of conventions which leverage 'potential' and 'conditional' meaning rather than 'fixed' meaning. Achieving immersion through description and interpretation is not analogous to achieving immersion through action and configuration. Resulting in an approach to analysis that is inappropriate for video games where narrative meaning is not exclusively the products of authors and their work, but a combination of authors and the end-users of the work – the players.

The second way which agency impacts copyright analysis is how it affects temporal relationships between players and the subject. In traditional media, the 'now' of the text and the 'now' of the reading time are disjunct. The text is complete, and players interpret it posthumously. On the other hand, as a result of agency, the way players navigate obstacles changes their temporal relationship between player and narrative. "The now of the game means that story time converge with playing time, *without the story/game world disappearing"*.[764] As noted in 5.4.1.2, the existence of a prior narrative which exists and presents itself for analysis becomes eroded, with players instead being presented with a narrative context within which they are free to express or construct narrative meaning. Accordingly, in analysing the relative importance of the various properties or conventions, or in drawing boundaries between the work as authored by game designers and players, depending on when the work is presented for copyright analysis, the conclusions that could be reached might arguably differ.

[764] 'Games Studies 0101: Games Telling Stories?' (n 32).

This is in part because depending on the degree of agency and the extent which it can be said to erode a prior narrative, the emphasis placed on authors versus players in determining the remit of the narrative or work may change as well. For example, where the potential paths and decisions players can make are fairly limited, or if there is a clear and fixed 'beginning and end', then it might be reasonable to approach the copyright analysis with more traditional literary assumptions about an author and audience's relationship to the work. Even with player performance, the linear nature of such works at least make circumscribing the work more predictable, and enable video game authors to better fit within copyright's traditional authorship models of authors as sole arbiters of meaning and expression. Conversely, for highly open-ended games, it may instead not be possible to identify a clear or linear authorial narrative, and the relationship of authors to work to audience may require theoretical models which are not outlined by copyright's traditional and literary driven narrative analysis. This could be the case in high agency and high player freedom games such as *The Sims*, which facilitate player driven narratives rather than presenting fixed playable narratives. For instance, games like *The Sims* are can be described as spaces within which "the player will move, and hence define their own story arc",[765] since there is no prescribed single objective which players are set to complete. There is no final objective, no quest that must be completed, no central narrative conflict that must be resolved, and thus no fixed narrative progression which is defined by the authors. As such, for games which relocate the 'authorship' of narrative and story to players, how should authorship for the purposes of copyright be constructed?

As stressed in 3.2.2, copyright authorship itself is a principle subject to significant criticism and it tends to perpetuate assumptions about authorship and authorial activity which is disconnected from certain contemporary authorship models and practices. In particular, copyright struggles with successive authorship and the displacement of authors as sole arbiters of meaning. Accordingly, agency which not only facilitates the relocation of meaning making to players but enables them to redefine or create new expressions means that copyright is limited in describing the nature of authorial activity

[765] Will Wright and Ken Perlin, 'Response by Will Wright to Can There Be a Form between a Game and a Story? By Ken Perlin' in Noah Wardrip-Fruin, Pat Harrigan and Michael Crumpton (eds), *First person: new media as story, performance, and game* (MIT Press 2004).

in certain video games. More so than in post-structuralist or post-modernist critiques, [766] the player undertakes an authoritative role in relation to the work. Whilst a reader might supply narrative meaning through interpretation, players supply narrative meaning by participating in the authorship of the work. For games with high degrees of agency, players can leave personal imprints on a work in ways indistinguishable to how author's personality are deemed embedded in works in conventional copyright analysis. And for multiplayer online games, conventional authorship becomes diluted even further, leading to a similar issue with Wikipedia entries and identifying authors in the context of successive authorship. In both cases, the conventional importance of authors as arbiters of meaning become diminished, whilst the role of audiences or players becomes amplified, resulting in authorial contexts which copyright lacks the tools to make sense of.

Moreover, even where agency does not entirely diminish the importance of authors, the nature of authorial activity also presents difficulties for copyright. Specifically, it is not clear how copyright might accommodate authors as architects for meaning making contexts, or as 'scripting' narrative meaning. And the unique sense of immersion available to video games, which stems from configurative actions undertaken by players is not readily described by copyright's approach to defining narrative expression. To reiterate, copyright depicts narrative expression as narrative interpretation. Therefore, it precludes narrative comprehension that constructs the story through and in relation to the actions undertaken and performed by players. Alternatively put, agency driven immersion as an expressive narrative tool enables game designers to adopt a different authorial role in relation to the work. Where they might be described as authors of the narrative context, rather than the narrative per se. And where their creativity and expression is instead reflected in the nature and kind of agency afforded to players.

As such, on the one hand, agency redefines author-audience relationships by extending expressive authority to audiences, whilst also introducing a new form of author-

[766] For more discussions on how video games reconfigure the role of players see Friedman (n 740); Burk, 'Copyright and Hypernarrative' (n 559); Jef Folkerts, 'Playing Games as an Art Experience: How Video Games Produce Meaning through Narrative and Play' in Daniel Riha and Anna Maj, *Emerging practices in cyberculture and social networking* (Editions Rodopi 2010); Reuveni (n 215).

audience relationship, by changing the role of authors. Defining authors as more than just arbiters of meaning, but as arbiters of the agency and kind of agency which players are afforded. Copyright is incapable of addressing these new roles and relationships which agency facilitates, since its lexicon and models are derived from traditional authorship conceptions which sever the work and authors from audiences. Moreover, in the context of these roles, it is unclear how copyright can strike the balance between author generated meaning and player generated meaning. A task which copyright already struggles with in balancing authorial meaning and reader or audience meaning, which it has sidestepped by looking only at authorial expression. Alongside redefining authorial and audience relationships, agency also enables narrative immersion in a way which is not comparable to traditional or literary narratives. Rather than effecting immersion through descriptions and representations, agency allows for a sense of immersion by allowing players to participate within the narrative itself.

Therefore, copyright which defines narratives in relation to representations rather than experience, cannot easily assess the expressive potential of agency, and by extension, may not be able to comprehensively or appropriate identify the narrative work in video games. Accordingly, copyright may need to re-evaluate its approach to defining authors and authorial activity if it seeks to appropriately accommodate the nature of authorship in video games, and may need to reconsider its emphasis on fixed representation in describing expressions to appreciate the full expressive potential available to video games.

5.4.2.4 – Summarizing copyright's issues with these new narrative tools

What the preceding discussions demonstrate then are two fundamental and common issues with copyright's approach to assessing narratives in video games. Firstly, to the extent that copyright concerns fixed objects and representations, its framework and models are limited for assessing narrative expressions in video games, which do not necessarily have fixed and static corollaries which present themselves for analysis. Secondly, because copyright is unable to adequately address conventions which draw on exploration, configuration or interaction as rhetorical tools, tools which concern a player's experience or performance of a game, it struggles to outline the roles of

authors and players in video games, which are reconceptualized in relation to the work. For instance, with space, because copyright concerns static representations of space, it has few ways to examine space as a unique expressive tool that is dynamic and conditional, and it struggles to adequately acknowledge the importance of player experience and navigation for realizing the narrative. Similarly, with agency, copyright cannot easily accommodate the delegation of narrative control to players, nor can it easily recognize the expressive potential of agency, and in turn, overlooks the role of authors as architects of that agency. This is also true for mechanics, where copyright fails to recognize that mechanics are another expressive and authorial tool, and likewise, cannot appreciate the importance of play and experience in comprehensively describing certain kinds of narratives unique to video games. Altogether then, the shortcomings outlined above can be summarised as copyright's emphasis on fixed representations, and the minimizing of experience for the purposes of assessing video games. However, these limitations are not only relevant for understanding why copyright's approach to narratives is deficient but are similarly important in understanding why copyright fails to appreciate video games as an expressive medium as a whole. And as will be emphasized shortly when discussing Ludology in 5.5, the arguably definitive characteristics of video games is their potential as an experience driven expressive medium. Which can leverage non-representational conventions to create meaning beyond just narratives, and in ways entirely different to other categories of works which copyright protects. As such, before turning to Ludology, it may be helpful to briefly prime the discussion by noting some limitations of a strictly narrative interpretative approach.

5.4.3 – Some limitations of a Narrative interpretation

A reoccurring problem through the previous discussions is how to ascribe narrative importance for video games. There is not always a central narrative, and with the agency afforded players, and the vast discrepancies in importance or relevance for mechanics and game-space to the narrative means that consistently identifying the important conventions for the given game must be ascertained on a case-by-case basis. In particular, agency and the approach through which players are able to make sense of these conventions and properties – configurative, means that players themselves

become arbiters on the importance of meaning, where any given 'plot point', or 'thematic device' may be discarded or focused on.

Alongside the difficulties in identifying the relative importance of a narrative convention is the situation where narrative conventions may simply not be relevant enough to the gameplay or even present. The best examples of this being sandbox and open world games which predominantly set aside narrative in lieu of player driven objectives. As discussed, *The Sims* is one example of this, where players are free to construct their own central narrative if they so choose. Alternatively, there are games like *Minecraft*, which although

"has a nominal ending wherein players defeat the Ender Dragon…most players are participating to see what they can create with their infinite blocks and complex crafting system…These kinds of sandbox experiences, while not necessarily new, represent emergent gaming experiences, wherein the player pursues goals that are not necessarily the intended goal of the game programmers or the game itself"[767]

For copyright, these non-narrative games arguably present the greatest difficulties. Whilst many of the non-literary approaches to narrative have demonstrated how limited copyright's lexicon might be in assessing the narratives underscored by these new structures and tools, for non-narrative games, even an expanded lexicon which might incorporate or recognise some of the above conventions as part of a conceptual framework still does not comprehensively describe the video game subject. Or at least, cannot account for a significant conceptual approach within the broader video game studies discipline – ludology. And similarly, the ludic discourse on the design and objective of these games likewise demonstrates the limitations of copyrights lexicon, as well as the dissonance between copyright's conceptual model of the subject of video games and its conventions within it. Therefore, the following sections will turn to ludology as the primary tool in outlining the unique conventions which underscore non-narrative games, whilst similarly demonstrating the limitations of copyright's approach as a scheme of protection focused only on representational conventions.

[767] Jensen, Barreto and Valentine (n 670).

5.5 – Ludology and non-representational approaches to game studies

The focus in Chapter 5 so far has been on the expressive potential of video games as an experience driven medium which can create narratives in ways distinct from traditional narrative and representational mediums. It has been stressed that exploration, configuration and interaction enable video games to express meaning using rhetorical tools that are not strictly comparable the conventions applied in literary and representational media, and therefore are difficult for copyright to appreciate. For video games, the narrative meaning is not limited to the tangible object and physical representations found within it, but can also be drawn in relation to the experience of that work. However, the expressive potential of experience does not solely concern narratives, and as will be demonstrated, the video game experience has rhetorical value that extends beyond the narrative.

The following discussion places greater emphasis on non-narrative tools and rhetorical concepts, situating them in analytical contexts which emphasize the non-narrative properties and conventions in video games. Demonstrating how copyright's predominantly narrative and representational approach to constructing video games is reductive, and reiterating the limitations of its lexicon. In understanding the expressive potential of video games as a non-narrative medium, ludology is a helpful discipline. As noted in 5.2, ludologists are researchers who predominantly approach the study of games as an independent discipline, who contend that video games are a unique creative medium that enables unique expressive tools which accordingly warrants unique approaches to study and analysis.

It bears repeating that ludology and narratology are not a dichotomy, and that the analysis and conventions of each respective discipline can and often may be employed alongside each other. Nonetheless, much of early ludology discourse was framed in opposition to narratology, and more rigidly ludological or 'ludic' approaches are still helpful, since not all games are stories. Moreover, ludological critiques concerning the limitation of strictly narrative and representational approaches are relevant as well, since the shortcomings of these interpretative approaches can be extended to understand the limitations of copyright's narrative and representational analysis. As

such, in demonstrating both the expressive nuances of video games as an experience driven medium, and the limitations of strictly representational approaches, ludology works as a helpful theoretical lens for understanding why copyright fails to appreciate video games as an expressive medium. Accordingly, the following section – 5.5.1 will first introduce interactive meaning, touching on the ways in which ludologists have described video game meaning and distinguished it from traditional representational meaning. 5.5.2 then looks at how video games can create interactive meaning, considering various examples by from ludology scholarship, and structured using Frasca's conceptual framework for play. Discussing the Playworld, Mechanics, and Playformance as sources of interactive meaning. And then finally, 5.5.3 considers the issues and implications of ludology for copyright.

5.5.1 – Introducing interactive meaning: Simulated as opposed to represented

It has been contended that ludology is helpful for explaining why video games are a unique expressive medium, and for understanding the rhetorical potential of experience and interactivity. This is because much of ludology scholarship has been dedicated to conceptualizing the ontology of video games, and discussing the forms of expression unique to video games. However, ludology as it is generally referred to is not so much a unified discipline, and is more accurately described as a collection of theories which share the common premise of 'not narrative'. Therefore, whilst there is often overlap, the terms and arguments made within it do not always share the same precise meanings, nor do all the theorists reach the same conclusions and propose the same models and ontology. Nonetheless, there are common features in the characterization of video games as an expressive medium that can be identified throughout the various discussions. Chief amongst these is a shared emphasis on the active nature of audiences as opposed to passive. And by extension of that, the interactive nature of the medium as an important source of meaning and value. The framing of this interactivity has multiple forms. For instance, it has been termed Ergodic by Aarseth in discussing cybertexts,[768] who borrows the term from physics, and applies it to describe the "non-

[768] Referring to hypertext fiction and video games as an extension of that.

trivial effort is required to allow the reader to traverse the text".[769] And contrasts it to traditional literature noting that unlike ergodic literature:

"A reader, however strongly engaged in the unfolding of a narrative, is powerless. Like a spectator...he may speculate, conjecture…even shout abuse, but he is not a player. Like a passenger on a train, he can study and interpret the shifting landscape, even release the emergency brake and step off, but he is not free to move the tracks in a different direction. He cannot have the player's pleasure of influence: 'Let's see what happens when I do *this*'"[770]

Stressing the direct participatory nature of audiences that enables the manipulation of the work as a key distinguishing characteristic for ergodic literature and interactivity. Similarly, Eskelinen has framed the interactivity as being configurative,[771] as being driven by "ends, means, rules, equipment and manipulative action",[772] highlighting the necessity of performance and manipulation for deciphering and appreciating the video game. Whereas some scholars like Bogost have placed significant emphasis on rules as the mediating factor for that action and interactivity. Describing the interactivity and the meaning generated as a result of process and procedure, and highlighting the importance of interaction as governed and dictated by rules, rather than as conveyed and represented by word or image.[773]

Finally, there is the approach taken by Frasca, who frames the interactivity as simulated. To that end, he subsumes the concepts of action, interaction, play, performance, configuration, rules and various other principles under the broad umbrella of simulation. Arguing that simulation and its conventions differ from traditional or 'representational' conventions of meaning making that exist in more passive mediums. Framed more in copyright terms, the style and sentiment or expressions in video games are not merely narrative, or strictly 'represented' as they might be for art (as visual properties), or music (as listened properties) or film (as audiovisual properties projected). Frasca's approach to understanding interactive meaning will be

[769] Aarseth, *Cybertext* (n 168).
[770] ibid.
[771] Eskelinen (n 680).
[772] ibid.
[773] Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (MIT Press 2010).

implemented for the purposes of this thesis and there are several reasons for doing so. Firstly, because the framework of simulation is broad enough to accommodate the various aforementioned approaches prescribed by other theorists. Secondly, because simulation, with its emphasis on experience, presents obvious conceptual difficulties for copyright's approach to protection with its temporal and spatial nature. Thirdly, because copyright's emphasis on objects, or formal qualities related to objects in constructing the work, alongside the conventions copyright frequently privileges when describing expressions, all fit well within what Frasca terms representational semiotics. And likewise, the limitations of a strictly representational approach for understanding video games in game studies mirrors copyright's limitations in accommodating video games. As such, the observations concerning the limitations of a strictly representational approach may be relevant for and can be extended to copyright.

Turning now to what Frasca means by simulation and why it differs from representation. The crucial distinction which Frasca makes is that the method of meaning making is different for simulation. He argues that "[e]ven if simulations and narrative do share some common elements –character, settings, events– their mechanics are essentially different".[774] To elaborate, whilst the expressions of representational media in semiotic terms can be described as 'sequences of signs', the same cannot be said for simulative creations. They do utilize and have sequences of signs within them, but they also "behave like machines or sign-generators".[775] The difference then is whilst the former is better equipped for "producing both descriptions of traits and sequences of events (narrative),"[776] those signs and meanings are generally fixed, or at least, the signs themselves are. Whereas for simulations, the meanings produced can be understood as models which correspond to behaviours and rules. As Frasca explains:

"A film about a plane landing is a narrative: an observer could interpret it in different ways (i.e. "it's a normal landing" or "it's an emergency landing") but she cannot manipulate it and influence on how the plane will land since film sequences are fixed and unalterable. On the other hand, the flight simulator allows the player to perform

[774] Frasca, 'Simulation versus Narrative: Introduction to Ludology' (n 369).
[775] ibid.
[776] ibid.

actions that will modify the behavior of the system in a way that is similar to the behavior of the actual plane"[777]

Frasca further contends that simulation, and its meaning making structures, enables authors or game designers to also generate unique meaning in ways which are not well understood or described by the semiotic models found in representational media. Where for simulation, the meaning or value can be defined in relation to the experience as the end goal itself. Rather than providing a story, a description or some other fixed representation, the objective of a game is to simulate, leveraging the experiences and environments which players can experiment and interact in. For instance, as the previous section discussed, in a game like *The Sims* or *Minecraft* which is not driven by linear narratives as such, but instead might be more concerned with the experience born out of play and performance, a strictly narrative approach to formalising meaning and identifying the expressive aspects of that game might fall short. Whereas a more procedural and rule-based model such as Bogosts, which concerns the freedom, limitations and goals of play may be more appropriate for understanding the meaning generated by play or for analysing how play and the experience is structured and 'simulated'.[778] It is argued that this is one of the primary reasons why copyright has been forced to render incoherent judgments. In attempting to protect the value of video games as simulative products, as works of 'experience', copyright has been forced to contort its framework of protection and the semiotic models which underscore it, to protect qualities which neither its concepts or lexicon were designed to address. This is why we have bears being equated to yetis, and snowfields to meadow. In the absence of appropriate tools to protect the simulative conventions, the representational must be warped to compensate. To better explain the limitations of a representational approach as opposed to one which anticipates simulative meaning making, the following sections will examine the various properties and conventions which are unique to video games, including the meaning and value which are distinctively simulative.

[777] ibid.
[778] Bogost (n 777).

5.5.2 – Discussing interactive and simulated meaning through Frasca's Model

For the purposes of structure, Frasca's framework for play will be utilised,[779] again because it accommodates many of the various concepts which other ludologists have proposed, but primarily because it is the model which bests correlates to the concepts of simulation and experience as opposed to representation. As such, the following sections will discuss meaning making in the following structure: playworld – the domain in which a game's objects, space and time exists, mechanics – the locus of rules and rule governance and interaction, and playformance – a term which refers to the "player's performance, both physical and mental",[780] describing in particular the general actions performed rather than a specific session of play. These are not isolated categories as such, and are not strictly detached from each other, especially since the various concepts work in tandem to create meaning. However, they are nonetheless useful categories for framing and structuring the discussion, and do outline some conventions of meaning making which although can often overlap across categories, generally fit within or are better described by a specific category compared to another.

5.5.2.1 – Playworld: Beyond audiovisual signs – structure and paths

What Frasca terms the playworld is essentially the dimension of play. A term which encompasses and refers to the space, the time and the various objects involved in play activities and games.[781] Out of all the approaches to categorizing structure and conventions in simulations, playworlds share the most similarities with other modes of expression found in representational media such as film, literature, art and music. Since many interactive creations are audiovisual works, and any visual or textual sign and associated convention will fall within the playworld. These conventions or signs can operate as sources of meaning and form part of the subject of the work in the same way it would for representational media. However, representational semiotics are not the only ways in which meaning is generated through playworlds, and similarly, alone they cannot provide a comprehensive understanding of the playworld nor the game itself.

[779] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[780] ibid.
[781] ibid.

Indeed, Frasca contends that "even a game with a non-representative playworld, without any text or illustration, could still convey meaning because the playworld is not limited to its visuals but also includes rhetorical elements such as the path itself and its layout".[782] Layout might refer to the architecture of the game, the order of levels for instance. Or it might refer to the juxtaposition of various playworld elements such as objects or characters. And the path refers to the way or various ways in which that architecture and the objects within it are navigated – linearly or non-linear for instance. Importantly, the choices and conventions employed in designing the path and layout carries connotations for the meaning of the video game, it could shape or complement narrative meaning, or it could generate meaning in of itself.

To understand the significance of paths as a factor in meaning making, Carr's discussion on the navigation in *Silent Hill* and *Planescape Torment* is helpful. Whilst *Silent Hill* and *Planescape Torment* share many similarities, especially in their playworld objects and fictional elements, for instance, both games feature zombies, violent combat, exploration and death, the two games are fundamentally different and indeed fall under different game genres as a result of their overarching design and in particular, their playworld structure. As Carr explains, a key difference in the games is their respective approach to 'navigation' and 'orientation' which as a result leads to the games having completely distinct and different gameplay experiences. For instance, the multipath structure of *Planescape Torment*, the emphasis on sub-quests, the cyclical navigation and scattered goals means that "progress…is reflective and responsive."[783] More specifically, the fact that avatar death is one strategy for advancing in the game – by acquiring new memories on avatar death, and because being moved back along the path is not a setback per se but an avenue for different and further discovery, the exploratory nature of the game is stressed, and encourages thoughtful navigation of the playworld. Making navigation a critical tool for communicating and understanding the subject and experience of *Planescape Torment* as "an exploratory, fantasy RPG with themes of lost memory and fragmented histories."[784] In contrast, *Silent Hill's* single path, its sequential and forward moving navigation emphasizes the tone and objective

[782] ibid.
[783] Diane Carr, 'Play Dead: Genre and Affect in Silent Hill and Planescape Torment' (2003) 3 Game Studies <http://www.gamestudies.org/0301/carr/> accessed 3 December 2021.
[784] ibid.

of the game – survival. As Carr argues "*Silent Hill* is a horror game, it aims for intensity, tension and fright, and its ability to generate such affect is fuelled by its more directed gameplay".[785] Therefore, its linear and driven navigation is integral in setting the right pace and in turn shaping the game's played experience. This example shows how copyright's emphasis on representational playworld elements can be inappropriate. It demonstrates that by focusing on visual characteristics like the geometric pie-shaped 'gobbler' figure in *PAC-MAN*, or spaceships and rocks for *Asteroids*, protection can become misplaced, leading to an analytical framework that fails to appropriately identify the relevant characteristics of the works being assessed, and as such falsely find comparisons between two games which although might share visual similarities, play vastly different.

The layout of the game similarly has significant meaning making or experience shaping potential, and as Frasca contends, the "order of challenges in multi-event games"[786] can change the framing of the entire game. In demonstrating this, Frasca refers to *Under Siege*, a game which examines the Israeli-Palestinian conflict. He notes that the first level presents itself in the format of a first person shooter, whereas other levels emphasize other objectives such as stealth or puzzle-solving. And contends that "the order of game levels –but also minigames, challenges and quests– can be shuffled as units of meaning in a syntagmatic way"[787], suggesting that if the game led with the stealth mission, it could set a very different narrative tone for the game. To some extent, there are some clear semiotic and narrative reasons for why this is the case, because the stealth mission features a young child against a group of soldiers, whereas the first-person shooter level is a conflict between soldiers. And accordingly, the games architecture of the challenges and events will shape the reception of the narrative, where depending on who's perspective is first introduced – a group of soldiers or a lone child, a different context of the conflict might be established. However, even besides this, the challenges themselves also arguably play into the construction of the narrative, and tonally set the context for the conflict which unfolds, as being either potentially adversarial – first person shooter, or survival - stealth. Which means that there is "rhetorical relevance [in] the order by which game levels or quests are introduced to the

[785] ibid.
[786] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[787] ibid.

player".[788] As such, the context and meaning of the narrative and the game setting can be established not only through playworld elements, but through the architectural framing of game levels and associated play. Accordingly, analysis which identifies the theme of a game solely by looking at the narrative architecture falls short. And this is especially true for copyright where the approach to constructing narrative architecture follows the traditions of literary textual analysis, where the expression or expressive meaning is abstracted from the written text in a semiotic and representational sense.

Furthermore, the architecture of events are not just ways in which meaning is shaped but can also be a source of meaning in of itself. As Ramsay contends, the formal structure of *Battlefield 1* is an important rhetorical tool in how the game conveys the expressive content of its subject. Drawing on the concept of liminality - referring to the suspension of time, space and order, or the "betwixt and between" process of transition, Ramsay discusses how the liminal architecture of the game reflects the liminal experience of War and in particular the subject of *Battlefield 1* – World War I. Arguing for instance that the formal architecture of the game *Battlefiend 1* – the disconnected menu screen, and ability to play missions non-linearly and out of order both in terms of numeral hierarchy (i.e mission 1-6) and in terms of chronology is symbolic of the liminal experience of Post-War trauma. As Ramsay explains:

"The menu, cut-scenes and gameplay of *Battlefield 1*'s single-player disrupt the linear relationship between cause and effect…The "mixing up" of spatial and temporal states and of fact and fiction facilitates an engagement not only with WWI as an historical construct, but also with the relationship between conflict and memory, particularly the memory of trauma."[789]

Ramsay emphasizes that trauma can be understood as being liminal, with one's chronology and sense of events being disrupted and destabilized. As such the architecture of the game punctuates this, by obscuring the temporal relationship of the player to the events, and being ambiguous as to whether the gameplay concerns live experiences, memory or flashback. "Gameplay is both the source of trauma for the

[788] ibid.
[789] Debra Ramsay, 'Liminality and the Smearing of War and Play in Battlefield 1' (2020) 20 Game Studies <http://gamestudies.org/2001/articles/ramsay> accessed 3 December 2021.

playable characters and the memory of that trauma, playing out in a temporal zone that is of no time but of all times simultaneously. The game's formal structure thus mirrors the experiences of soldiers in the war itself."[790] As such, the temporal structure facilitates a unique temporal ambiguity which is arguably impossible to replicate in represented media. It is one which places players in the centre of the ambiguity itself, not as passive observers of events but as individuals who themselves are left to contend with the blurred distinctions of time. To not simply understand trauma as liminal, but to experience a liminality that echoes the liminal experiences recalled by soldiers. The expressive potential of *Battlefield 1* is accordingly not solely drawn in relation to the narrative and the literary structure of that narrative per se, but can be understood as also a product of the game's liminal structure against which the narrative plot is anchored. This kind of structure presents two challenges for copyright. Firstly, the liminal structure itself is something which copyright cannot properly describe with its current framework and lexicon, where architecture or structure are understood in a literary sense and therefore presumes that the structures are linear. A second and related issue is that although a soldier's experience of liminality can be described through representational semiotics, expressed through textual or visual representations such as literary descriptions or film montage; the liminal experience itself as an expressive convention is not something which copyright is equipped to assess. This is because the expressive potential of the liminal structure is defined by the experience it prescribes, the sense of trauma and liminality are concepts which are communicated to players through simulation, through their own experience of events and time being distorted and disrupted. As such, copyright which defines expression by virtue of interpretation and representation cannot accurately describe the expression and communication which, like liminal structure, leverages experience and simulation.

The architectural order or juxtaposition of in game elements can also carry ideological connotations for the construction of the video game subject. Juxtaposition and perspective are well established conventional tools within film, and the importance of perspective, the camera, point of view and the embedded ideology within them is not new to film. To an extent, these film philosophies translate to video games, since they share similarities as a visual medium, and "can share a common visual language, as it is

[790] Carr (n 787).

clearly seen in videogame cutscenes".[791] There are however, ways in which the juxtaposition and framing differs in a video game. Some are more filmic, such as Lev's spatial montage concept, which describes the presentation of multiple frames and viewpoints of the same event – as was employed in *Goldeneye 007*.[792] Alternatively, other theorists have emphasized the relationship of the player location and perspective to the space. Since "[virtual worlds are] a cinema of space that functions through limiting the player's view of an always already complete universe."[793] Emphasizing not just the juxtaposition of the avatar to other in game elements such as the backdrop or other characters, but to events as well. Crucially, the juxtaposition is not strictly concerned with visual distinctions, but with navigation and access as well. For instance, the presentation of events "in games with a linear and unicursal spatial structure, such as side-scrollers like *Super Mario Bros*…[where] objects, enemies and challenges are introduced to the player in a sequential way"[794] compared to "games where the player is able to freely roam across the space, such as *GTA III* (2001)"[795] may well take different approaches in designing how players navigate the game. What is or is not encouraged, and accordingly what paths and associated ideological decision making exists carries implications for how players might approach play and exploration.

To that end, progress and reward structures are another aspect of game architecture which can define the play experience. For instance, Gazzard has commented on how different reward structures and cycles can and often correspond to different gameplay experiences. Noting for instance that whilst *Limbo* and *GTA V* both share a "cycle of reward of exploration leading to reward of environment",[796] the ability in *GTA V* to break reward cycles, for players to identify their own goals and rewards differs from the linear reward cycle of a game like *Limbo*. Where for *Limbo*, the reward of new environment encourages players to move forward in their navigation and exploration of the gameworld. Similarly, Costikyan has argued that structure and the nature of

[791] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[792] ibid citing Manovich (n 878).
[793] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32); Joseph Tekippe, 'Marking Space: On Spatial Representation in Contemporary Visual Culture: Copyright Restrictions Prevent ACM from Providing the Full Text for This Work.', *ACM SIGGRAPH 2006 Art Gallery* (Association for Computing Machinery 2006).
[794] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[795] ibid.
[796] Alison Gazzard, 'Unlocking the Gameworld: The Rewards of Space and Time in Videogames' (2011) 11 Game Studies <http://gamestudies.org/1101/articles/gazzard_alison> accessed 3 December 2021.

advancement can also radically change how games are played. Noting that whilst *Everquest* and *Ultima Online* are both very similar games – for instance they are both MMORPGs, graphical MUDS, set in fantasy worlds and advance through killing monsters and accumulating various equipment, a crucial structural difference has led to very different player behaviour and in turn experiences between the two games.[797] Specifically, that *Ultima Online* allows you to advance by killing other play-characters. Alternatively put, the games can be distinguished as being PVE – Player versus Environment, and PVP – Player versus Player. This Costikyan argues is why for instance *Ultima Online* ends up being more of an all-out war, whereas *EverQuest* there is a greater sense of community, and social play. "A small change in structure breeds a big change in player behavior."[798] The juxtaposition of player against environment or player against player effectively shapes and determines in significant part what the ultimate play experience entails. Similarly, play and exploration is shaped is through access to certain in game objects or tools for navigating the game, as Frasca suggests:

"the player may be more likely to shoot his way out of a challenge if she is first provided with a gun rather than with a powerup that encourages stealth, such as an invisibility cloak or camouflage suit. The designer has then the options of either introducing first the weapon or the stealth-tool. Additionally, she could also introduce them both at the same time, by locating the two objects next to each other. The first options arguably encourage the player to use a particular strategy to solve the challenge while the last possibility leaves the decision to her. This exemplifies some of the rhetorical possibilities of level design."[799]

As such, the layout of the tools and associated paths that are presented to players could well dictate the player's construction of the video game subject. What all these examples demonstrate is the limitations of copyright's representational approach to constructing works and their expressive elements. This is because strictly visual and textual juxtaposition fundamentally concerns comparisons drawn between the elements of the work, as abstracted from the tangible properties or object. In contrast, the

[797] Costikyan Greg, 'I Have No Words & I Must Design: Toward a Critical Vocabulary for Games', *Computer Games and Digital Cultures Conference Proceedings* (Tampere University Press 2002).
[798] ibid.
[799] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).

juxtaposition of players to events, players to players, or players to environments concern the ephemeral experience as pre-empted by the structures in the simulation. Common to all these structural approaches is their importance as tools which engineer the potential experience of players, and which provide the framework for the kinds of meaning which emerge from the simulation. They facilitate expression through prescription rather than description, relying on configuration rather than interpretation. Serving expressive purposes which have no obvious corollary in conventional representational semiotics and in copyright's analysis, which are concerned with expression and meaning as settled, fixed and discernible from tangible representations.

A further concept which is relevant for constructing the architecture of a video game's playworld and in turn carries consequences for copyright is 'degree'. Recalling the example of different tools for navigating a game, if one tool – such as the camouflage suit, is more obscured than the other, it could create a disparity in what approaches players are more likely to take when playing the game and resolving its challenges, which in turn shapes how players perceive the game and lead players to reach differing conclusions about not just the narrative but also the genre and objective of the game.

This concept of degrees and ambiguous paths is an additional quality which is unique to playworlds rather than a 'storyworld' or 'fictional universe' as it is often termed for conventional media. This is because "traditional storytelling normally deals with endings in a binary way."[800] A story might be able to tell you that change is possible, but not to what extent nor how likely it is. There are two consequences to this. Firstly, that endings and events are in traditional media generally fixed:

"At most, they could write five or six different stories…But traditional narrative media lacks the "feature" of allowing modifications to the stories, even if exceptions happen in oral storytelling and drama performances…No matter how badly literary theorists remind us of the active role of the reader, that train will hit Anna Karenina and Oedipus will kill his father and sleep with his mother."[801]

[800] Frasca, 'Simulation versus Narrative: Introduction to Ludology' (n 369).
[801] ibid.

In contrast, for games the expectation is often reversed, there is an overt recognition that games are not always single experiences, and that they have diverging path ways. So much so that it is becoming increasingly common practice for players to leave multiple save points with the intention to revisit various situations and explore all the potential splintering paths, of replay culture.[802] Players "recognize them as games because we know we can always start over. Certainly, you could play a game only once, but the knowledge and interpretation of simulations requires repetition".[803]

Secondly, video games or simulations have techniques which allow 'fate' and outcome to be expressed as degrees through the use of mechanics or rules. In part, this is a product of chance mechanics, but equally it can be achieved by modelling difficulty.[804] For instance, a game could hypothetically have different degrees of difficulty correspond to different characters as a rhetorical tool for commenting on privilege and prejudice. A full discussion on the rhetorical potential of mechanics and rules will be discussed shortly in the following section, but for now it suffices to acknowledge that mechanics open up an additional approach to defining the layout and paths which exist in the game. Accordingly, through degrees or ambiguous paths, video games are able to emphasize chance and fate as meaningful and expressive properties, to not just explain that the outcome of the game is indeterminate, but to literally let players understand and appreciate that indeterminacy first-hand. And the expectation in copyright that there is a 'set experience' or narrative that is being described and communicated is difficult to reconcile with this recognition that video games can entail a plethora of potential experiences. Where what is being communicated is not necessarily a single encounter, but a simulation within which several experiences can emerge.

Another structural tool which is also closely connected to mechanics and rules is Aporia and Epiphany as a meaning making structure. Two concepts which Aarseth adapted for understanding cybertexts.[805] In this context, "hypertext aporias create puzzlement not at the level of the meaning but literally create a puzzle where there is a

[802] Murray, 'From Game-Story to Cyberdrama Janet Murray' (n 30).
[803] Frasca, 'Simulation versus Narrative: Introduction to Ludology' (n 369).
[804] ibid; Chris Crawford, 'Deikto: A Language for Interactive Storytelling' in Noah Wardrip-Fruin and Pat Harrigan (eds), *Second person: role-playing and story in games and playable media* (MIT Press 2007).
[805] Aarseth, *Cybertext* (n 168).

physical piece that is missing"[806], whilst epiphany refers to the solving of that puzzle. It is less concerned with confusion and enlightenment, and more of searching and finding. To that end, the structures and elements which are used to anchor that exploration and discovery function differently to those in traditional media. For instance, whilst "[i]n narratives, aporias are usually informal structures, semantic gaps that hinder the interpretation of the work. In ergodic works such as *Doom*, the aporias are formal figures, localizable "roadblocks" that must be overcome".[807] And similarly, "Compared to the epiphanies of narrative texts, the ergodic epiphanies are not optional, something to enhance the aesthetic experience, but essential to the exploration of the event space."[808] The connotations that each of these elements carry for meaning making thus are conceptually different and serve different purposes altogether. Indeed, consider the "you-never-win-games" discussed in Chapter 2, where as an extreme example, the absence of a path to victory, and the absence of epiphany itself is the source of meaning. The futility of the game reflects the futility inherent in the narrative.

This approach to assigning meaning and value for games might not only have implications for how relevant an element, or structure might be in understanding the broader subject of a video game, but for copyright as well. Returning again to the Yeti-Bear example, would it make more sense to emphasize their characteristics and visual traits, or would it they be better classified as important 'roadblocks' or elements which must be overcome or navigated through to play the game. From a game driven perspective it would seem to be the latter approach, and indeed one might well argue that this was the approach taken by the courts albeit indirectly. Referring only to visuals and characters owing to the limitations of the framework.

What this as well as earlier observations demonstrate is that the structure of a game and its architecture are not readily amenable to the fixed structures and literary structures, and in turn run contrary to the assumptions implicit in those models. Not only are there different approaches to structure which are not found in conventional media, but there are unique tools to articulate and emphasize those structural differences. And it is not clear whether copyright can include such tools within its remit. For instance, with

[806] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[807] ibid.
[808] ibid.

aporia and epiphany structures, the classification of a game elements as a roadblocks could be understood as a form of rule structure, or as pertaining to function, and thus treated as unprotectable. Furthermore, there are issues with how copyright might protect such architecture and structure for the purposes of video games. Determining the architecture of written texts may be possible, but where the architecture concerns something simulated not represented, in relation to what should the architecture be drawn? It might be possible to define it by reference to code, however, it would need to look at the architecture prescribed by the code, rather than looking at the architecture of the code as was considered in *Navitaire*,[809] and even then it is arguable whether the code represents the full extent of a games architecture. Since the playworld as a space to be navigated can similarly form part of game's architecture.

Moreover, although comparing the architecture of a written work might be straightforward if the two are similarly linear, for layouts which have multiple diverging paths, how should they be compared? Need every potential branch be the same, or would it be a question of degree of similarity? Moreover, how would advances in technology affect that, there are already inchoate works which have constantly expanding playworlds and pathways, and there may eventually be worlds which supposedly generate branches themselves. How can copyright if at all fix and identify these amorphous layouts? Especially since the layouts and pathways are to an extent, products of temporal and spatial relationships, they exist in anticipation of player decision making and exploration, they may prescribe or encourage approaches, but they do not always specifically dictate them. How can copyright accommodate the expectation of performance and potential paths, and should it consider the inherent variables and potentially significant permutations which might exist as a result of the layout? Relatedly, how much importance should it ascribe to them. As already demonstrated, simply changing the order of paths can change the reception of a game. As such, should copyright seek to ignore structure altogether, to dissect narrative meaning away from the structure and focus only on expressions conveyed by the narrative conventions? Even if it means the subject is only partially or even incorrectly constructed as a result of ignoring the non-representational conventions of the playworld?

[809] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).

These are not straightforward questions to answer, nor are there at present many obvious solutions for them, and as the following sections depart further away from representational meaning making, there are increasingly difficult challenges for copyright in accommodating the unique properties and conventions which in many ways define the subject and medium of video games. On the one hand, it could be suggested that the way architecture has been defined by ludologists, can be compared to how it has been referred to in cases such as Baigent,[810] where it refers to how various elements were "put together"[811]. However, it is also worth noting that the architecture and layout outlined in this discussion could in some ways be analogised to the concept of business logic which was presented and rejected in Navitaire.[812] As such, the extent to which copyright can currently or be stretched to accommodate the more ludic aspects of playworld is uncertain. On the one hand, it is arguable that following the observations made in the preceding analysis, courts could recognize the closeness of a games layout with the games narratively understood plot, and to that end overcome the hurdles which prevented the analogy of the business logic to the plot of a novel – especially if it were subsumed into this broader concept of a playworld which included the traditional conventions and expressions which copyright already protects. However, setting aside the question of copyright and protection, the playworld and its accompanying concepts of layout and paths only partially represent the properties which the business logic concept was describing, and certainly does not describe all the properties and conventions of a video game either. In particular, the other aspect of business logic which formed part of its rejection was its closeness with function, process and rules, all concepts which copyright distinguishes as unprotectable, and all concepts which fall under the mechanics category as properties which shape and define the construction of video games, their ontology and their meaning, or in copyright terms, the boundaries of the work and its expressions.

[810] *Baigent v Random House Group Ltd* (n 110).
[811] ibid.
[812] *Navitaire Inc. V Easyjet Airline Company and Another* (n 84).

5.5.2.2 – Mechanics: Rules as verbs and procedural rhetoric for meaning making

As the earlier discussion on mechanics and narrative in 5.4.2.2 discussed, mechanics can be generally understood as the regulation of what can be done or how things are to be done. And framing that regulation is a plethora of rules which exist within video games and shape experience. There is no unified consensus on the specific taxonomy of rules in games, but Frasca has proposed a general typology which again owing to its broad-brush approach is helpful for describing various kinds of rules and accommodates different ways in which rules might create meaning. Broadly then, there are three main categories of rules: model rules, grade rules and goal rules.[813] These categories can also helpfully be described as what players can or cannot, should or should not, and must or must not do, respectively. Together, these concepts generally describe the kinds of rules which can be found in a video game. They can be extrinsic or intrinsic, and may be implemented by hard coding a specific rule or interaction, or observed as a model or process derived from various rules which describe the procedures within that model or process.

There are numerous ways in which these rules can create meaning, and can do so individually and directly, or inferred from a set or collection of regulations. One approach has been outlined by Bogost, who notes that one way which rules create meaning is through what he terms procedural rhetoric, he explains that:

"procedural rhetoric entails expression - to convey ideas effectively. Procedural rhetoric is a subdomain of procedural authorship; its arguments are made not through the construction of words or images, but through the authorship of rules of behavior, the construction of dynamic models. In computation, those rules are authored in code, through the practice of programming"[814]

Crucially Bogost stresses that procedural rhetoric provides a novel and distinct approach to present "*how things work*".[815] To explain this, Bogosts cites the

[813] There is at least one other category – meta rules which describe how players can modify games, but for relevance and scope it will not be considered for the purposes of this thesis.
[814] Bogost (n 777).
[815] ibid.

McDonald's Videogame as an example. A satirical videogame or 'anti-advertisement game' which provides social commentary on the business practices of McDonalds and other large scale corporate restaurants. The player of the game controls various parts of Mcdonalds production, and whilst playing the game they are presented with difficult business decisions that entail making moral decisions as well. For instance, the player must have enough land for cattle-grazing, but there are limited fields and as such, must turn to bribing government officials in order to co-opt local crops fields for McDonalds production. The player is presented with numerous choices like this, choices which correspond to the business practices which the developers seek to critique. Bogost explains that:

"The *McDonald's Videogame* mounts a procedural rhetoric about the necessity of corruption in the global fast food business…In order to succeed in the long-term, the player must use growth hormones, he must coerce banana republics...destroy indigenous villages..[etc]...As Patrick Dugan explains, the game imposes "constraints simulating necessary evils"…Verbal rhetoric certainly supports this type of claim; one can explain the persuasive function of process with language…But these written media do not express their arguments procedurally; instead, they describe the processes at work in such systems with speech, writing, or ideas."[816]

As such, the rules which dictate what must and must not be done to succeed, the goal rules, are utilised to present the critique that in order to achieve corporate success, the business practices necessarily involve eschewing morals for financial gain. Corporate success and failure are directly analogised to the player's success and failure. And it is through this approach to persuasion which Bogost argues that games are able to create distinct and unique meaning. He contrasts it with representational mediums which rely on text or image to describe, rather than through procedural media which use process and experience as methods for conveying the rhetoric. This distinction he argues demonstrates the limitations of a representational approach. Explaining that: "Visual rhetoric simply does not account for procedural representation…in procedural media…images are frequently constructed, selected, or sequenced in code, making the

[816] ibid.

stock tools of visual rhetoric inadequate. Image is subordinate to process".[817] And by extension, this criticism applies to copyright too. To the extent that copyright's tools are derived from analysing represented media, they are inadequate for making sense of the exploration of simulative and procedural media. The related issues of temporality and spatiality are again relevant here. Copyright's conventions pertain to specific instances of meaning, they are in essence static. This is abundantly clear for literary and artistic works, but even for music since the dynamics of the performance and temporality of sound are fixed for the purposes of copyright. As Chapter 4 stressed the score or a recording is artificially and reductively used to describe the performance of music. And the same is true for video games. To prioritize the dialogue or characters or visuals of a video game are to emphasize specific instances or aspects of a game to ignore the overall process and experience of it. What Bogost's analysis of the *McDonalds Videogame* demonstrates is that the expression of a video game is one which emerges specifically from play, and which requires play and experience to be fully communicated. Examining only audiovisuals and the story, as copyright does, is reductive at best, and perhaps may miss the true subject and meaning which require play to be properly interpreted. The nuance which emerges from the nature of actions required to succeed in and 'win' the *McDonalds Videogame* is specifically tied to the procedure of play, and the associated rules which players must place themselves against. In contrast to the static expressive qualities of a book or film, it is in the dynamics of winning and losing, and the nature of how players must proceed through the game to win where the expression and subject of the game emerges.

Besides procedure and rules as a set of regulation, specific rules themselves can also function as useful tools for generating meaning within video games. In particular, Crawford's concept of verbs is helpful here – which simply describes what can users or players do.[818] Whilst a literary character is constrained or defined by their traits – for instance narrative characteristics such as class, gender, occupation might dictate what they are capable of doing, for video games, avatars are defined both by traits and the game's verbs. As Frasca explains, "game verbs are a way to shape a game character's personality because they define their strengths and weaknesses. A character in Sega's

[817] ibid.
[818] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 172) citing Crawford (n 975).

tennis game *Virtua Tennis* (1999) does not only look like a tennis player: she also behaves like one."[819] As such, a visual or literary depiction of a character in a video game does not explain comprehensively what that character is or represents. Applied to *Spry Fox*,[820] the game verbs of the Bears and Yetis – move to adjacent square, block square, etc, can be seen as more definitive of the 'character' for the purposes of the game, rather than its fictional characteristics – such as being a bear or yeti, a wild furred creature, traits which might otherwise carry greater relevance for identifying representational semiotics. Consider as well the analysis in *Atari v North American Phillips*,[821] where although there was a focus on representational characteristics between the two games, specifically visual similarities – for instancing noting that both 'gobbler' characters had a "v-shaped mouth which rapidly opens and closes",[822] or that both games ghost monsters shared legs which "move in a centipede-like manner".[823] There was also an emphasis placed on characteristics which might better be described as game verbs. Where the court noted for instance that both games shared a 'role reversal' mechanic, which is precipitated by consuming a power capsule, which slows monsters, and lets the gobbler character eat them and so forth.

Reviewing these cases then through a ludological lens, it seems reasonable that although the court lacked the vocabulary to fully address the protection of the game and its play itself, there are arguably nascent attempts reaching towards it. In the least, it also provides one explanation as to why the court in *Spry Fox*[824] drew parallels between a bear and yeti, where the similarities in a representational sense are at best debatable, whereas in a ludic sense, comparing their game verbs, the bear and yeti are basically identical. Indeed what *Spry Fox*[825] demonstrates is the consequences of having only on representational characteristics to assess the subject of games. Where less correlative or comparable representations are forced to be deemed similar in order to protect the ludic. Worse still, it cannot be assumed that representational traits will always correlate to the mechanics or game verbs associated with them. Consider for instance, the

[819] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[820] *Spry Fox v. LOLApps* (n 348).
[821] *Atari, Inc. v. North American Philips Consumer Electronics Corp* (n 343).
[822] ibid.
[823] ibid.
[824] *Spry Fox v. LOLApps* (n 348).
[825] ibid.

analysis of *Halo 2* by Vorhees, who comments on how the shared game verbs of the two protagonists was used to create an ambivalence towards the politics of the game's central conflict. Arguing that whilst the two protagonists had completely different visual and narrative characteristics, with each character being tied to different perspectives on "post 9/11 war rhetorics"[826]; the mechanical equivalency of the two protagonists was leveraged to encourage or "invite"[827] players to 'neutrally' assess the war conflict. Demonstrating that fully relying on representational traits, and assuming that mechanics and game verbs necessarily correspond to their representation can potentially be limited for comprehensively describing a character or game element.

A further example of the limitations of relying on representational characteristics to describe procedurally generated meaning can also be demonstrated by returning to the example of *Asteroids*. For instance, Salen and Zimmerman have noted how the control of *Asteroids* are significant in constructing the subject of the game. Observing that "*Asteroids*…represents the feeling of vast space through the inertial drift of the player's ship…the player must manoeuvre the ship retro rocket-style, taking into account acceleration and momentum. Through this designed activity, the game expressively depicts deep space"[828]

As such, exclusively examining the design of the spaceship only provides a partial account of its relevance within the game subject, and indeed even the court in *Atari v Amusement World*[829] looked beyond representational characteristics to recognize this. Noting that other differences in the two games included how "the player's spaceship handles differently and fires differently".[830] Demonstrating that even copyright must sometimes recognize, albeit implicitly, the limitations of a strictly representational approach. Accordingly, fully understanding an aspect of a game, even one which can be communicated through representational semiotics, can require equal emphasis on how it procedurally is depicted within the game as well. Moreover, this goes beyond

[826] Gerald Voorhees, 'Play and Possibility in the Rhetoric of the War on Terror: The Structure of Agency in Halo 2' (2014) 14 Game Studies <http://gamestudies.org/1401/articles/gvoorhees> accessed 3 December 2021.
[827] ibid.
[828] Salen and Zimmerman (n 672).
[829] *Atari, Inc v. Amusement World, Inc* (n 273).
[830] ibid.

what a game characteristic can do and includes how it does it, and how the game verb is designed. For instance, Swink has commented on how the damage or health properties of objects carry significant rhetorical potential on how that object is perceived or understood by players. Explaining that:

"Shooting anything in *Halo* requires many shots, which make the game feel fairly massive, especially compared with a game like *Dawn of Sorrow*, where you can whack a skeleton once and bones go flying everywhere. It's very satisfying, but has a completely different feel than *Halo*…The amount of damage something can take provides feedback on the assumed physical properties of the object."[831]

As such, whilst a building might be understood as derelict by virtue of its description in a book, or by pictures depicting a building full of cracks, for a game, its condition can be communicated by its mechanical properties such as 'health', and how players are able to interact with it. Players learn or understand that a building is dilapidated not only by interpreting its representational characteristics, but learn through configuration, by acting upon the building and seeing how it responds. Furthermore, there are subtle ways in which mechanics can carry meaning or indeed present rhetoric and ideology. A pertinent example which Frasca cites is *The Sims*. Where the game's verbs on romancing present several ideological stances. Players are for instance unable to make Sims romance plants or inanimate objects, but they are able to romance adults regardless of gender or race. Moreover,

"there is no mentioning about sex rules in *The Sims'* printed manual. This means that the only way to test the ideological boundaries of the game is to test it by pushing its limits. Players will realize that they can have same-sex relationships only by hitting on their same-sex neighbors…Unlike previous adventure, text-based interfaces, where any verb could be tried with any object (resulting in either an action or an error message), verbs in *The Sims* are contextual, so their absence shows the presence of the designer's ideology"[832]

[831] Steve Swink, *Game Feel: A Game Designer's Guide to Virtual Sensation* (Morgan Kaufmann Publishers/Elsevier 2009).
[832] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).

A crucial observation which can be drawn from this is how simulations and games can present authors or game designers with novel approaches to constructing meaning and rhetoric, where there are instances where meaning is strictly a product of exploration or play. For this rhetoric, players can only learn from doing, not by being told. There is little analogy with traditional media which rarely enables this approach to meaning making, and within representational media arguably none.[833] Accordingly, copyright lacks the tools or models to properly describe these procedural and configurative approaches to meaning construction, to recognize this "procedural authorship".[834] If meaning stems solely from play and exploration, where there is no observable representational characteristic which anchors the procedural meaning, then copyright can only examine procedure. And with the presumption against protecting rule governed or driven expressions, or on procedures, copyright is fundamentally ill equipped to accommodate this kind creative expression.

A further mechanical or procedural approach to meaning making is through difficulty. As already discussed, difficulty can be leveraged as a tool to create degrees of meaning, and thus present models as a source of meaning rather than as descriptions and statements. Similarly, "you-never-win-games" likewise represent an absolute difficulty which serve to engender futility. Adjacent to that then is impossible objectives as a rhetorical device. A technique which can be used alongside difficult games to compound the various other meaning making conventions. One example that Frasca uses is *Ayiti: The Cost of Life*, which is a game about living and getting an education in Haiti. He notes that whilst it is extremely difficult, it is possible to win. However, certain goals remain impossible to complete even though players can still win the game. For example, the game allows you to buy objects, and buying a house is ostensibly one purchase players can make, however, it is impossible for players to amass enough money to buy it. As such, the game "uses unattainable goals within the game in order to make a statement".[835] These are a few ways in which difficulty can be leveraged to create meaning through what players can do,[836] or through how easy or likely it is for them to succeed in doing so. And again, for copyright, these kinds of

[833] Immersive theatre being arguably traditional media but certainly not strictly representational.
[834] Bogost (n 777).
[835] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[836] There is another way difficulty creates meaning – as difficulty itself and as challenge, however, that will be fully explored in the following section.

expressive conventions prove elusive for its representational semiotic approach, and for its framework which precludes procedurally driven meaning.

To summarise then, mechanics serve important roles in the meaning making structure of video games. They may work hand in hand with the structure, by prescribing how paths are to be navigated, or outlining what objectives must be completed to proceed in the game, or they might generate meaning themselves, as verbs. And by detailing what players can or cannot do, mechanics can generate meaning in ways which can only be realized or actualised through play and experience. Accordingly, this creates problems for copyright since play, and experience as concepts are difficult to accommodate within copyright lexicon. They are not properties easily amenable to copyright's framework, because like expressions that are temporal or spatial, expressions borne from experience have no immediate object which they can be drawn or defined in relation to. There are some properties which do prescribe aspects of that experience, mechanics in particular if constructed through a game's code can be presented for analysis under copyright, but it would nonetheless require re-evaluating assumptions about both the protection of code and functional restraints, as well as reconsidering how expressive qualities are defined in relation to objects and categories. Since although experience can be drawn in relation to code, applying the textual and representational analysis of literary works which concern expressive representations sheds little insight about the nature and conventions of code as a vehicle for creating expressive experiences.

Finally, whilst representational semiotics can be important to games, they are at times - as Bogost notes in relation to image – "subordinate to process".[837] One extreme example of this is *Warioware*, where its representational and fictional qualities are leveraged to make sense of its procedural aspects and the mechanics of play. *Warioware* is a game that is filled with 'microgames', short games which often barely last a few seconds. As Gingold explains, because *Warioware* changes games so rapidly "you can't map nouns and verbs from one game to the next. One game may contain a snowboarder, and you figured out that by pushing left and right on the directional pad you could guide her through a gate, but the next game has no snow boarder, gate, or

[837] Bogost (n 777).

even snow"[838]. As such, the importance of the fictional and representational characteristics to the game as a whole are less important that the fictions' specific and endogenous meaning within the context of that micro game. Which in turn, can make drawing conclusions about fictions in terms of some overarching narrative, or cohesive construction of the work difficult, and certainly in relation to qualifying the importance of a respective fiction to the game as a whole. Secondly, the way fictions work in *Warioware* are crucial in their relationship with the microgame, they seek to communicate or make sense of the objective of the microgame game. In that sense, they differ from the objectives of a literary character, in that they are crucial for anchoring game goals and controls. Specifically, although the fictions may lack cohesiveness to *Warioware* as a whole, there is a critical relationship between the microfictions narrative and its rules. As Gingold stresses:

"If the fiction of The Brush Off, where players move a toothbrush back and forth over a mouthful of teeth, was changed to a map of Denmark moving back and forth over a bumblebee, that game would be less playable. A goal state (it is desirable to clean dirty teeth), controls (usually one drives the toothbrush, not the teeth), and inputs (left and right, aligned with the direction and location of the toothbrush), are all immediately communicated by the fictional representation"[839]

Fiction is thus entirely secondary for the purposes of games like *Warioware*. It exists not as part of some narrative, but to "explicate rules".[840] This similarly provides a more helpful way to interpret the conclusion reached in *Spry Fox*.[841] Where the fictions of a Bear and Yeti are perhaps better understood as being secondary to rules, as fictions which communicate their underlying rule function – adversary figures. Even if the *Spry Fox*[842] emphasis on the representational characteristics is still ultimately an indirect solution for protecting the ludic and thus still reductive at best, and wrong at worst.

[838] Chaim Gingold, 'Game Studies 0501: WarioWare' (2005) 5 Game Studies <http://www.gamestudies.org/0501/gingold/#2> accessed 3 December 2021.
[839] ibid.
[840] ibid.
[841] *Spry Fox v. LOLApps* (n 348).
[842] ibid.

Accordingly, for copyright to diminish the importance of mechanics which mediate the world and a players navigation of it, overlooks the rhetorical potential and communicative significance of video games. An approach that sets aside mechanics ultimately does not comprehensively describe the subject, at least in its understanding within game studies. Nor does it accurately describe the full meaning which might exist in a video game, which although might emerge through its narrative and other representational semiotics, may equally if not more so stem from its mechanics. As noted in Chapter 2, and reiterated in both 5.4.2.2 and here, these mechanics, rules and procedures are not functionally dictated, and serve purposes which are both connected to the narrative which copyright purportedly protects, as well as in generating unique meaning which if nothing else, forms part of the distinct ontology and conventions of video games. As such, copyright's reluctance to recognize them and the associated conventions carries significant implications for what copyright as a framework is supposed to regulate. Warranting either a re-examination of its overarching purpose, or a re-examination of the tools it uses to achieve that purpose, or in the limitations and restrictions it outlines.

5.5.2.3 – Playformance: Haptic and Kinesthetic

The final category which describes the kinds of meaning making models and systems in video games is Playformance. A term which broadly encompasses the play and performance which takes place in games, and that focuses on the effort and actions made by players. This meaning making is not necessarily common to all video games. Nor does it generate meaning understood in the same way that it might be in traditional narrative semiotics, representational semiotics or even in the ways discussed above. As Eskelinen explains, simulations which are driven by action, reaction and hand-eye coordination can sometimes induce "physical or physiological reactions".[843] And as an extension of these reactions, some theorists have asserted that the performance and play in games are capable of portraying and conveying specific meaning or carry value unique to the medium.[844] Related to this, there are two kinds of systems of meaning making within playformance which roughly correspond to these 'reactions' – those which are more kinesthetic – as more concerned with sense or sensation and thus

[843] Eskelinen (n 680).
[844] ibid; Swink (n 835); Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).

psychological, and those which are haptic and more concerned with touch.[845] These concepts are not strictly distinct, since to some degree it can be contended that haptic perception include elements of kinesthetic interpretation, but there are some differences. And the 'location of meaning' of each approach differs somewhat, where kinesthetic draws meaning in relation to the 'space between the body and the apparatus[846]', and haptic draws meaning in relation to the body and its performance. Accordingly, each will be discussed in turn.

5.5.2.3.1 – Kinesthetic

Kinesthetic Theory is an analytical approach proposed by Karhulahti which can be described as a theory of games which is primarily concerned with rhetoric or meaning which emerges from players engaging with or encountering game challenges. Crucially, whilst the meaning or value might be described as 'rhetorical' in a sense, as Karhulahti stresses, at their core, they are fundamentally distinct from meaning. He argues that within this approach, gaming is best understood as

"as autotelic persuasive performance; as a rhetoric with no claims, arguments, or extractable thematic meaning…[And] while semiotic context may, and often does, charge these negotiations with thematic potential, an actualization of that potential is optional in terms of persuasive success"[847]

Put into more copyright terms or relying on the terminology outlined in 5.3, the creativity, value and within that the expressions that it addresses are thus more concerned with the game and play as a distinct properties of protection and as part of the subject of protection. They are in a sense, similar to sonorous musical properties, where they could arguably be leveraged to create thematic potential, but equally represent creative goals and value in of themselves. In the way that there is art for arts sake, this is game for games sake. Returning then to kinesthetics, it is a theory which

[845] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32); Huber (n 654).
[846] where apparatus can refer to the game and the objects of play such as controllers or keyboards
[847] Veli-Matti Karhulahti, 'A Kinesthetic Theory of Videogames: Time-Critical Challenge and Aporetic Rhematic' (2013) 13 Game Studies <http://gamestudies.org/1301/articles/karhulahti_kinesthetic_theory_of_the_videogame> accessed 9 April 2019.

describes the emerging value from challenge, specifically kinesthetic challenge rather than nonkinesthetic. Briefly, nonkinesthetic challenge might best be defined negatively, as it name implies, being not-kinesthetic, but it can loosely also be described as challenges which are strictly mental. Conversely, kinesthetic challenges primarily involve physical challenges – although kinesthetic games in general are more accurately described as involving physical (kinesthetic) and mental challenges (nonkinesthetic), or described as having psychomotor challenges (both). These are somewhat simplifications and there is nuance, but for current purposes this distinction suffices. To better explain kinesthetics then Karhulahti specifically outlines two central criteria: "the vicarious element of challenge, and the temporal element of challenge."[848]

The critical characteristic of the vicarious element of challenge is in the construction of its input, input device and effort or challenge which is associated with it. Related to this, is the significance of the psychomotor effort, where changing the input or input device could lead to changing the nature of the challenge itself. For instance, Karhulahti compares a nonkinesthetic and kinesthetic game, digital chess and *Super Mario Bros* respectively. Explaining that:

"Altering the input device from mouse to keyboard does not affect the chess challenge; the entailed strategic cognitive effort remains the same. In *Mario*, conversely, the psychomotorically challenging vicarious input defines the conflict; the effort required to perform jumps and runs varies strikingly between different input devices"

As such, a critical factor in kinesthetic challenge is in its performance both physically and how that becomes represented in the game as well. The challenge is something which does not represent difficulty per say, but more accurately, is a depiction of the experience as a total phenomenon. And related to that is the temporal element of challenge, which itself forms part of the many other different temporal relations which take place for video games. With respect to understanding kinesthetics as temporal challenges, Karhulahti employs a criteria which builds on Pias's concept of "the action

[848] ibid.

game"[849], explaining that the challenges are temporal in that they either refer to actions which must be carried out under time pressure, or are defined by performing actions at the right time. Together then, these describe elements which are specific to kinesthetic challenges, and the way in which those challenges can create meaning or rhetoric will now be considered.

The primary way or form in which these time sensitive, effort and input driven performances create meaning is through patterns. Patterns which straddle movement and the apparatus. Or rather, the "the unseen patterns the discovery of which eventually solves the mystery of challenge."[850] Alternatively put they might be described as the overall performance of engaging and navigating challenges. They are thus not simply in the actions themselves, but exist between action and device. "[T]he buttons of game controllers do not only afford pushing them, but it is an activity that attains its specific meaning in relation to a particular game (or in relation to a mechanically and systemically distinct segment of a game".[851] This Karhulahti contends creates a specific and unique way to create value and meaning, arguing that:

"In the same way as the forms of visual arts rest in the invisible relations between lines and colors (e.g. Bell 1914), the forms of the videogame are found in the invisible patterns of thrusts and turns. The possibility to negotiate vicariously through kinesthetic form patterns surfaces as the element that makes the videogame a cultural genre with a unique aesthetic and rhematic."[852]

Expanding on this, he explains that what this creates is specific understanding associated with the process of play. One which is centred on and driven by the play and game itself. As noted above, this rhetoric is technically 'meaningless' and is not driven by thematic interpretation as such. Instead, it is suggested that the values lies in

[849] Karhulahti (n 172) citing Pias, C. (2004). Action, Adventure, Desire. In Hagebölling H. (Ed.), *Interactive Dramaturgies: New Approaches in Multimedia Content and Design*, pp. 133-47. Trans. Salomon, L. Berlin: Springer-Verlag.
[850] ibid.
[851] Johan Blomberg, 'The Semiotics of the Game Controller' (2018) 18 Game Studies <http://gamestudies.org/1802/articles/blomberg> accessed 9 September 2021.
[852] Karhulahti (n 851).

sensation.[853] Following and citing Swink's approach to expression through game feel,[854] Karhulahti argues that

"In game design the expressed is a meaningless kinesthetic sensation, "how it will feel to control [every] turn, twist, jump and run" (Swink, 2009, p. 15). For the player the videogame is a platform for experiencing these meaningless sensations; for the designer it is a platform for constructing new possibility spaces for kinesthetic performance. Like compositions in music, kinesthetic challenges are not disturbances but incentives for players to find new areas in the provided possibility space, introducing "sensations of control they would have missed otherwise" (p. 17). Videogame design is not about "defining what the player will do, but what he or she *can* do" (ibid)."[855]

For Karhulahti then, the sensation or the 'feel' of the game represents a distinctive and expressive feature of the video game medium. Stressing that sensory experience has expressive importance and value. This, he further argues represents a departure from the traditional models of signs, meaning and interpretation which frequently informs the approaches to interpreting and constructing video games, and is one which warrants its own discipline. Because the existing methods employed by other interpretative disciplines identify meaning expressed through the experience rather than focusing on the experience itself as an expressive characterstic, and therefore are only of limited use.[856] This same critique can be further extended to copyright, to demonstrate why copyright is unable to properly describe kinesthetic sensation.

This is because sensations, which emerge from the invisible patterns of play and performance and kinesthetics which concerns experience as an intangible phenomenon, are not readily accommodated within copyright's framework which primarily concerns physical representations or the expressions which can be abstracted from those representations. As such, for sensation in games, like with sound or performance for music, there is a built-in incompatibility with copyright. It might be argued that the performance and the patterns which emerge from the performed experience could be

[853] ibid.
[854] Swink (n 835).
[855] Karhulahti (n 851).
[856] ibid.

described and reified by the code, not dissimilar to how copyright reifies music performances through musical scores. However, the same criticism of relying on musical score to depict performance applies, it is a partial and artificial reification because sensation is fundamentally intangible. The issue with kinesthetic performance is that it is only ever partially described by any of its material reifiers. Recalling the example of *Mario* and *Chess*, changing the platform of play can radically change the kinesthetic experience of *Mario*. This concept is difficult for copyright to properly describe, because it ultimately is most specifically drawn in relation to a physical performance by a player, as an activity, or in relation to the platform on which it is played or performed, rather than in relation to the work per se, or in relation to any specific aspects of the work which design that activity. It concerns meaning that best correlates to the space between the body and the apparatus. Accordingly, it is not readily described by the material reifiers which copyright tends to rely on in anchoring ephemeral aspects of works.

Besides 'meaningless' sensation, kinesthetic challenges can nonetheless also serve to generate meaning through the contexts in which the sensation is experienced. For instance, Swink contends that whilst there might be pleasurable sensation in dribbling a ball, that appeal becomes amplified when put into context, where a player might dribble the ball around defenders and proceed to score goals. Swink suggests that to a significant extent, rules shape and define that context, there is for instance the aforementioned example of health properties and the associated kinasthetic sensation from interacting with objects of various durability as represented by the mechanics of health.[857] As such, an action can have immediate kinesthetic appeal, and equally, the health of the player-avatar can also be leveraged to heighten the sense of players within their environment. As Swink observes:

"think about what happens when you're playing a game and you suddenly become aware that you're low on health…Suddenly, every tiny motion seems a lot more important. You have a heightened awareness of every motion and are keenly attuned to the control, the feel, of the avatar."[858]

[857] Swink (n 835).
[858] ibid.

Therefore, whilst certain actions might have no immediate appeal, and can include repetitive if not seemingly tedious motions, if those actions have a relationship to an objective or goal, the eventual meaning from achieving that goal may translate to those repetitive actions having cumulative meaning as players work towards the goal.[859] The pleasure of placing a puzzle piece is amplified as it becomes a step forward in completing the whole puzzle. However, the fact that kinesthetic sensation can be leveraged to create context meaning does not necessarily make it easier for copyright to accommodate, since fundamentally, the locus of that meaning is still the sensation which exists between the body and the game apparatus. It is mediated by the body, the video game, and the objects and physical apparatus of play, but there is no tangible object and work from which the sensation can be directly abstracted from and conceptualised in relation to. And in the absence of such a physical object, it is not clear how copyright can begin to describe and discuss kinesthetics.

One interesting suggestion Karhulahti makes is that a truly appropriate model may ultimately be one which requires actual play or is driven by play itself. An approach where play is mandated to make sense of the meaningless.[860] Whether it really is the case that kinesthetics demand play and experience to fully interpret them and appreciate their value or sensation, and whether it could be argued that for copyright infringement assessments games must be played to properly determine infringement is certainly something that remains to be seen. Nonetheless, this assertion still carries some interesting consequences for copyright. Since in any event, the existing limitations of traditional interpretive models do carry some more immediate implications for copyright's approach. In particular, relying on side by side comparisons of games translated into representations – as is frequently done in infringement, does not seem to be an appropriate approach for understanding the performed and played properties of a video game, kinesthetic or not.

[859] ibid., for instance how the repetitive action of cutting grass can become meaningful as a result of the context unrelated or arbitrary rewards which stem from it – finding gems, purchases made by those gems, finding arrows, etc.
[860] Karhulahti (n 851).

Moreover, fixed and static models seem poor tools for assessing the dynamics and effort which are intrinsically found in kinesthetic games. It may well be the case that copyright cannot or may not be the appropriate tool for protecting or understanding this aspect of video games. Since more so than perhaps any other property or convention of video games, kinesthetics represent the most significant departure from representation, and considering their emphasis on performance, play and internalised psychomotor responses resist crystallization into any physical or tangible form, regardless of whether it is in a form or object that copyright recognizes or otherwise. Likewise, as meaningless conventions they are arguably the least amenable to copyright's expression concept, although that in theory should not preclude them from protection since musical expressions are still protected sans persuasive meaning. Nonetheless, they raise questions about the scope and objectives of copyright, and reiterate that if these are or increasingly become concepts which form part of the ontology of video games, or part of the conventions which underscore the value and importance of video games as a medium, can, and how should they be treated by copyright? Perhaps it is simply inevitable that the subject in copyright remains and becomes increasingly disconnected with the subject understood by game studies.

5.5.2.3.2 – Haptic

The other conceptual approach to constructing meaning through performance in playing games is haptic. To reiterate, there is some overlap between kinesthetic meaning and haptic meaning, as both emphasize sensation and psychomotor response. Nonetheless, they do so in varying degrees and ultimately the specific context of meaning is different, where haptics focus more on the body as the source of meaning, rather than the invisible patterns of sensation in kinesthetics. As such, haptic understanding can be described as a product of both body performance and perception. It is to an extent underscored by touch, as is implied by the term itself – haptic being an adjective that relates to the sense of touch. However, the 'haptic perceptual system' is not limited to the experience and sensation of touch, but includes the entire body as the 'system' through which meaning is generated and understood:

"The haptic system, unlike the other perceptual systems, includes the whole body, most of its parts, and all of its surface. The extremities are exploratory sense organs, but they

are also performatory motor organs; that is to say, the equipment for feeling is anatomically the same as the equipment for doing…haptic interpretation combines both touch and body performance…[and] integrates the tactile and kinesthetic sensory subsystems, with the motor system (for exploration and manipulation) along with a cognitive system that orchestrates the experience"[861]

For haptic meaning making then performance is as important as sense, the way something is performed – such as how a toy gun is played with, is as important as other properties such as visual and physical signs like colour, feel and temperature.[862] The haptic symbols need also not be literally correlated, especially in the context of digital haptic signs. To explain this, Frasca uses the example of double clicking a mouse to open a folder. An action which clearly does not mirror the real world actions which opening a physical folder entail. Instead, the relationship is 'indexical', as Frasca explains: "A sign is indexical when the relationship with what it represents is not arbitrary but physically or causally connected".[863] One example of this haptic index is the rumble or "force feedback mechanisms"[864] of a controller, through which meaning can be generated. For instance, the controllers vibrations could directly correspond to the games visual output as a literal proxy. Where the vibration of the controller might directly be used to imitate the vibrations of a wheel which the player and their avatar is using to drive. Or it might be more symbolic, where in a horror game, the controller might start "shaking as if it was trembling in fear".[865] Controllers are not the only way in which haptic meaning making might be generated, for instance, it can be derived from the players physical performance itself.

Frasca proposes the example where the avatar in the playworld is a tired, thin and weak person. Whose animation is designed to emphasize this characterstic. Frasca contends that this could also be emphasized through haptics, where the player would equally be expected to perform in a way that symbolizes or reflects the avatar's weakness. He explains that:

[861] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[862] ibid.
[863] ibid.
[864] Swink
[865] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).

"The player would be required to perform with extra difficulty, too, by having to swing her arm faster and wider than usually. This way, the task would both look and feel hard to accomplish. Displaying an old, tired, thin avatar draws upon rhetorical conventions born in cartoons and caricature. Forcing the player to exaggerate her physical performance is the equivalent to a rhetorical figure, not on the playworld level but on the haptic one."[866]

As such, the performance becomes symbolically representative of the thematic and or narrative qualities which underscore the game. It becomes a process through which players are capable of internalising meaning and then enacting it as well to fully interpret what the game is simulating or portraying. Related to control schemes which require emphasised or strenuous physical exertion is the similar convention of 'janky controls'. Where designers can deliberately design poor control schemes for specific objectives. The idea of sluggish controls to heighten tension in horror games has already been touched on, but such an approach can similarly be used to communicate the experiences of player-avatars. Schmalzer for instance has discussed how the use erratic controls in *Grand Theft Auto IV* when the player-avatar as inebriated emphasize the effects of being drunk and the characters condition, noting that "by removing the correlation between inputs and outputs we could say that I gain an empathetic understanding of Niko's drunken situation".[867] Similarly, Schmalzer has commented on the rhetorical potential of jank control schemes, suggesting that games which deliberately eschew standard control interfaces or easy control schemes can be employed to draw parallels about disability and atypical body experiences, or to subvert ableist assumptions about players and player bodies. Which in turn "can open the door for some amount of empathy between players of a variety of embodied experiences".[868] In that same vein, Schmalzer has also noted how such an approach be used more metaphorically, citing Ruberg's analysis of *Octodad* which can be read as an allegory for trans-experience and the act of passing and arguing that:

"As the player contorts their fingers in strange, difficult configurations that they likely

[866] ibid.
[867] MD Schmalzer, 'Janky Controls and Embodied Play: Disrupting the Cybernetic Gameplay Circuit' (2020) 20 Game Studies <http://gamestudies.org/2003/articles/schmalzer> accessed 3 December 2021.
[868] ibid.

have no literacy in, *Octodad* "must literally contort his body to the world around him" (p. 101). The player feels the lack of control and unnatural movements that the out of place invertebrate does. Ruberg likens this to the experience of trans people that must make their bodies conform to a world that is not built with them in mind" [869]

As such, subversive control schemes represent a potential rhetorical tool which can not only challenge the assumptions and expectations that players might have when engaging with games, but also works to invite players to draw parallels between their own first-hand experience as designed by the game, and the broader experiences and contexts which the game symbolizes and expresses. A unique expressive convention which with its emphasis on experience is again difficult to replicate in traditional and more representational media. Which accordingly means that it is difficult for copyright to accommodate within its representational and object-oriented framework.

Moreover, like with controllers, the performance need not be symbolic, and can correlate more directly and literally. Virtual Reality is an obvious example of how a more literal correlation might take place, and there are other similarly technological apparatus that enable this too. For example, Pozo has commented on the rhetorical potential of motion controls, discussing how haptics can be utilised to create meaning making and generating contexts. In doing so, Pozo considers the game *Hurt me Plenty* – a motion control game about kink and consent which invites players to virtually spank an NPC through a 'gestural interface'. Observing that the control scheme and the associated model of kink play enables simulations which mirror the experiences and practices of kink and consent – up-down for consent, side to side for spanking, and circular for rubbing and aftercare. Through this model and interface, Pozo argues that *Hurt me Plenty* "builds consensual affect and simulates kink forms of tactility".[870] Explaining that "[t]rying to spank a computer partner through a gestural interface opens the user to much uncertainty, hesitancy, and failure, productive affects for the representation of consensual sexuality"[871] And suggesting that "by using consensual procedure, *Hurt Me Plenty* provides a context for the player to explore their feelings

[869] ibid.
[870] Teddy Pozo, 'Queer Games After Empathy: Feminism and Haptic Game Design Aesthetics from Consent to Cuteness to the Radically Soft' (2018) 18 Game Studies <http://gamestudies.org/1803/articles/pozo> accessed 3 December 2021.
[871] ibid.

about kink and sexuality"[872] As such, motion controls can be understood as a conventional tool which games can employ to design contexts that are more participative. They allow for physiological environments as well as physiological procedures for exploring rhetoric and empathy by inviting players to explore their own desires or concerns through experience. Meaning and expression becomes something which directly emerges from players first-hand experience and tactile interaction with the design of the game.

In contrast to kinesthetics then the expressive value of the performance can better be drawn in relation to meaning or the game rather than sensation as the goal itself. It is less about the experience and play and more about understanding the game, its meaning and potential ideologies and rhetoric within it. It can be leveraged alongside other conceptual models and tools in forming the broader conceptual framework of meaning and interpretation within the game. On the one hand, this perhaps might mean that it is more readily described by copyright, at least to the extent that the expressed meaning could be comparable to the semiotic or rhetorical meaning which copyright ordinarily and supposedly protects. However, there are still challenges as the vehicle of that meaning still proves troublesome for copyright, since the conventions turn on tactile experience and performed motion control. Concepts which have no immediate analogy in copyright, and which do not necessarily correspond to an object per se. To reiterate, tactile refers not literally to touch of an object, and even to the extent that it does, the haptic and tactile sensation is arguably more directly connected to the apparatus rather than the video game as a work unto itself. As such, although haptic performance might be able to communicate meaning in a sense which copyright is more familiar with, it nonetheless involves conventions and approaches to expressions which resist copyright's framework.

Furthermore, there are ways in which haptic performance can still fully be distinguished from other aspects of the game, where the emphasis is entirely on the body performance as a distinct source of interpretation. As an example of this, Frasca considers the dance pad in *Dance Dance Revolution* (DDR), since changing the size of the dance mat can in turn affect the body performance and by extension have

[872] ibid.

significant consequences for the game itself.[873] To explain this, he notes how a novelty 'mini-dancing pad' which allows players to play the game using their fingers rather than their feet as is traditionally done in DDR, radically changes the playformance aspect of the game, without changing anything else. The rules are unchanged, the software is identical, and its aural and visual semiotics – the music and images likewise are untouched. However, the performance is entirely different and as he contends, so too is the game.[874] Copyright has limited tools for understanding and describing this difference in the performance and experience. Crucially this is because the representational semiotics, as meaning making symbols remain the same. For either dancing-pad, the expression which can be abstracted from the audiovisuals is essentially identical, since the size of the pad does not affect it. What instead changes is the performance, which as an experience, even if an experience in relation to an object, is not easily accommodated and described by copyright, which ultimately concerns representations in objects. Demonstrating again the limitations of copyright in understanding the fundamental features which define video games as a medium.

Nonetheless, compared to kinesthetics, it is conceivable that the haptic aspects of a game might be more easily accommodated by copyright. At least since it is more capable of being defined in relation to physical objects and artifacts, connected with other more easily protected aspects of the game, and or understood as part of the meanings and various expressions which can follow more narrative traditions. Of course, there are limitations too, with the closeness of performance in navigating games, and with the arguable functional restrictions which may affect certain performative aspects which are less thematically driven. Rumbling controllers for horror or sluggish controller response for weak characters might for instance have a better claim for being non-functional than the dance pad might be for DDR. Regardless, the same point demonstrated throughout is reiterated – regardless of whether these are capable of being protected, they represent key and developing sub-disciplines within game studies, and are increasingly being subsumed into its ever growing ontology and evolving understanding of its conventions and expressions. And as such, the distance between the copyright subject of video games, which splinters the medium and

[873] Frasca, 'Play the Message: Play, Game and Videogame Rhetoric' (n 32).
[874] ibid.

shoehorns the various properties into ill equipped or unsuitable categories, and the subject in game studies discipline becomes ever more pronounced. It has been suggested that the incoherent conclusions which copyright has reached are already a product of its inability to properly comprehend and draw the boundaries around the subject and work of video games. If copyright intends to accommodate the unique properties and conventions of video games, then this distance certainly demonstrates that some changes are imperative. It may be that a more specific category which anticipates and correlates to video games and their discipline is necessary, it may be that its tools need to be reconceptualised, or its limitations and restrictions be re-evaluated. In any event, the preceding discussions demonstrate that there are a plethora of properties which by virtue of being non-narrative in nature, and driven by performance, time, space, rules, procedure and mechanics, are left entirely overlooked by copyright, do not fit well within copyright's ontology, and resist definition under its lexicon.

5.5.3 – Copyright's issues with ludology and interactive meaning

Relying on the arguments made by ludologists, it has been contended that video games have unique expressive tools and approaches for creating meaning, and do so through simulation rather than representation. It has been stressed that this interactive meaning is not easily accommodated by the representational analysis and models which are relied upon in traditional creative mediums like literature, film or art. Extending this argument to copyright, it has been shown that because copyright's approach to understanding the expressive characteristics of works can be described as falling within representational models of analysis, its models and vocabulary are limited for describing and making sense of simulative meaning.

To elaborate, copyright struggles to conceptualize video games and interactive meaning because the relevant characteristics of expression are different, and because expressions which concern the ephemeral experience are not analogizable to expressions which concern tangible representations. For instance, where the expression is ephemeral or emerges from experience, abstracting that expression is difficult since there is no obvious tangible or physical object from which the expression can be abstracted from

or drawn in relation to. Moreover, these ephemeral experiences may correspond to a plethora of different sources, none of which are readily amenable to copyright. Whether that be in the sensations which stem from invisible patterns of play and exist between the body and apparatus, or whether they exist as a product of code, or rules, which must contend with copyright's inherent presumptions about their nature and protectability. It was also demonstrated that relying on representational analysis is limited because representational depictions do not always correspond to procedural depictions. Since how something appears in a simulation might not correlate with how it mechanically behaves in the simulation, as defined by its game verbs. Or what it structurally represents, as a source for aporia and epiphany.

Beyond differences in their characteristics, it was further argued that trying to conceptualize interactive meaning through representational approaches is unhelpful because their respective approaches and methods of communicating are different. Prescription cannot be compared to description and configuration is not the same as interpretation. For example, copyright's emphasis on representation rather than experiences means that copyright cannot easily describe procedurally driven expression and expressions which require play or configuration for the meaning to be communicated. As such, for games like the *McDonalds Videogame,* where meaning is achieved only in the configurative dynamics of winning and losing, in a player's experience of success and failure, representational semiotics which rely on interpretation are insufficient. Similarly, the importance of performance and the requirement of play was emphasized through kinesthetic sensation. Where its distinctive approach to expression is sensory driven, and 'meaningless', and therefore cannot be described by interpretive, meaning driven models, which define meaning rather than experience as the end goal. Which accordingly means that copyright which leverages those interpretive models cannot describe it either.

It was also noted that there are inherent within copyright's framework additional obstacles, which exacerbate its inability to appropriately describe and assess simulated meaning and the ludic qualities of video games. In particular, it was argued that copyright which deals with works as fixed entities and objects rather than ambiguous experiences cannot properly assess video games as an experience driven medium. The same difficulties for copyright with space as environments of ambiguous narrative

meaning reoccurs, and the playworld space as an environment for ambiguous experience proves difficult for copyright to accomodate. In addition, because copyright resists functionally driven expressions, it has few tools for making sense of game architecture and further limits its ability to describe mechanics which leverage procedurally driven expressions.

As such, there are several consequences and conclusions which can be drawn. Firstly, ludology exposes the conceptual flaws of copyright's approach, by demonstrating how video games are fundamentally dissimilar in both nature and expression to the traditional works which copyright protects. Secondly, ludology outlines the practical issues with copyright's representational approach. It does so by explaining the shortcomings of representational analysis, for instance, kinesthetics demonstrate the limitation of trying to use arbitrary side by side analysis to make sense of performance, play and experience. And does so by prescribing more accurate methodological approaches to constructing the expressive features of video games. Specifically, it was argued that ludic models are more appropriate for describing traits or elements that concern experience rather than representations. Suggesting for instance that the characterization of the bear and yeti in *Spry Fox*[875] as being roadblocks, or defining them by virtue of their game verbs enable more accurate depictions of what they are for the purpose of the game. Rather than relying on how they are described in a representational sense. Similarly, it was stressed that with the absence of ludic models, copyright has been forced to dilute its representational framework, which in turn has led to inappropriate representational analysis applied in certain video game cases, and demonstrates why they are simultaneously overprotected and underprotected to such an extent. Applying ludology to copyright then, it suggests that that there should be a re-examination of copyright's overarching purpose, or a re-examination of the tools it uses to achieve that purpose, or in the limitations and restrictions it outlines.

5.6 – The limitations of ludology

The problems identified with narrative interpretations were mostly about balancing the relative importance of conventions and properties, and its inability to comprehensively

[875] *Spry Fox v. LOLApps* (n 348).

describe the properties of video games that are non-narrative in nature, such as those accommodated by ludology. For ludology however, its problems are in a sense more straightforward, specifically, that it is a recent development and it is still evolving. Indeed, the approaches outlined above are not shown as representative of ludology as a specific discipline to displace or be considered alongside narrative, but rather to demonstrate that there are emerging concepts which present challenges for a more narratively oriented conceptual framework. Which as has been stressed throughout, closely mirrors the situation with copyright's conceptual models and its approach to protecting video games and interactive works. Ironically then the strengths of ludology are its weaknesses. Whilst as an emergent discipline that is severed from the assumptions and traditions of narrative interpretation, and as an approach designed for the purposes of assessing games specifically and uniquely, it represents a helpful new framework for reconceptualising the interpretation, study and analysis of video games. One which is arguably more accurate and appropriate for the medium. However, because it is still developing, concepts are far from established, and are being constantly reconceptualised and revised. There is simply no clear, cohesive or singular framework, and owing to the various distinct properties of video games, especially as a multimodal medium it seems unlikely that there may ever be one.

In contrast, narrative interpretive traditions or even reconceptualised narrative traditions which have been redesigned to better accommodate video games or at least video game narratives have at the minimum older if not clearer conceptual foundations. And if nothing else, narratively driven models are arguably still the most appropriate approach for specifically understanding the narrative aspects of video games. As noted at the onset of this chapter, the two do not represent a dichotomy, or distinct approaches entirely, but instead are different formal approaches which occasionally overlap and ultimately inform the overall comprehension of the video game subject. As for copyright then, it is perhaps immediately arguable that borrowing from narratological analysis in video games might be more easily done, since in the same way that theorists adapted narrative traditions to address narratives in games as a new medium, copyright might be able to similarly adapt its narratively driven models to better accommodate video games. Whereas for ludology, incorporating the observations it has made about the nature of the video game subject, and the various proposed models for conceptualising the properties and conventions which operate within video games

seems far from straightforward. Setting aside logistics, there are clear implications and questions for whether this conceptual lens is even appropriate for copyright, and whether the characteristics and nature of what ludology addresses is suitable for protection under copyright at all.

5.7 – Conclusion

Interactive creations can thus be distinguished from other copyright subject matter in two primary ways. Firstly, they can be understood as works which not only have their own tools and techniques for expressing narrative meaning but are works where the narrative tools and expressions are a product of their unique interactive nature. Where through non-linear, spatial, temporal and dynamic narratives, they can create meaning which require conceptual models that do not exist in copyright, and which are otherwise poorly described by copyright's existing lexicon. Showing that even if the work serves the same expressive purpose – to communicate a narrative, the manner in which that narrative is fulfilled remains distinct. Reiterating the limitation of drawing parallels between expressive traditions across different categories.

Secondly, interactive creations are unlike other copyright subject matter, because their meaning and expressive value goes beyond the object and the tangible representations within the object. For interactive creations, there is also rhetorical purpose and value in a player's experience of and interaction with the work. As such, they include properties which are difficult to accommodate within copyright's framework of protection, as they lack a fixed and stable objection against which the work and its associated expressions can be defined and abstracted in relation to. Since copyright is preoccupied with objects and static representations, it is conceptually ill equipped to contend with the ludic expression unique to video games that draw on experience, simulation and interaction. Because the ways that the formal characteristics of interactive creations present themselves for analysis are not comparable to how the formal characteristics of representational media present themselves. Copyright, which adopts a representational approach, is incapable of even describing the work it is assessing ab initio. The artificial crystallization of the work into static frames and fixed representations pre-empts an analysis which begins with the wrong kind of work, and the wrong

characteristics for analysis. Moreover, copyright's analytical approach, which looks towards static and represented characteristics, is inappropriate because communicating meaning through interpretation is not commensurate with communicating meaning through experience. And presumptions derived from representational methods of expression are of questionable relevance for ludological conventions.

It is this reliance on inappropriate and representational characteristics that leads to copyright's remit and protection being distorted. The elevation of geometric shapes to fictional characters is a product of copyright compensating for its limited lexicon. And the fact that ludological analysis provides a more helpful explanation for why copyright conferred protection on characteristics which ordinarily would not meet protection thresholds is further evidence of this. As such, not only can ludology supplement the vocabulary that copyright is so crucially lacking for describing interactive creations, but it also demonstrates why copyright can neither appropriately describe the expressions which are being implemented in interactive creations, nor identify the relevant characteristics of the interactive works it is assessing. Which raises some important questions about the scope and objectives of copyright and carries implications for how copyright identifies its subject matter, and the kinds of characteristics which it deems worthy and relevant for protection.

Chapter 6 – Conclusion: Implications of ludology for copyright

Ever since copyright has attempted to provide protection against unfair exploitation, and expanded protection to include the immaterial qualities of works, copyright has struggled to appropriately draw the boundaries of protection. This is most evident with copyright's application of its idea-expression dichotomy, which has resulted in copyright simultaneously overprotecting and underprotecting works. Interactive creations have been especially difficult for copyright to accommodate. This is because their multimedia and inchoate nature are difficult for copyright to characterize within its framework which emphasizes static objects and their physical characteristics. Resulting in interactive creations being artificially dissected for the purposes of analysis. Moreover, their interactivity challenges copyright's assumptions about ideas and expressions, and copyright's inability to overcome these assumptions has left them with thin to no protection for the kinds of characteristics or qualities which are unique to them as works. Meaning that copyright has had to dilute and overprotect concepts borrowed from other subject matter to compensate.

Copyright's inability to effectively define boundaries is connected to underlying difficulties with copyright's approach to reification. This is because copyright's principles, which it relies on to both define the subject it is protecting (as a whole), and which it applies to outline what is protected specifically (as expressions or as creations originating from authors) are flawed. With copyright's work concept presenting the most significant hurdles for copyright in circumscribing interactive creations. Alongside the issues with copyright's work concept are the limitations with how copyright has identified subject matter, which in turn affects interactive creations since they are protected disparately across various subject matter. There are two primary limitations, firstly that several analytical traditions which copyright leverages to define and examine its enumerated subject matter have shortcomings. Secondly, that there are certain characteristics which are difficult for copyright to accommodate – characteristics which are not readily defined in relation to objects.

There are, however, additional reasons why copyright has been so unsuccessful in its attempts to circumscribe interactive creations. And as argued, for comprehensively

understanding why copyright fails to accommodate interactive creations, video game and ludic analysis is helpful in several ways. Firstly, video game scholarship demonstrates why copyright's model, which subsumes all narrative traditions into literary traditions is incorrect. Secondly, ludology shows how and why interactivity distinguishes interactive creations as an expressive work which leverages simulation rather than representation to communicate the work. Thirdly, ludology shows why copyright's representational ontology and object centred analysis is limited, since it cannot conceptually describe ludological meaning and expressive tools, nor properly define the ontology of interactive creations. And by extension, fails to recognize the intangible characteristics that underpin that ontology. Finally, ludology suggests that copyright's recourse to and dilution of narrative and representational expressions is the product of copyright attempting to provide indirect protection for ludic qualities. Since the expressions which copyright identified as protected, are better understood as expressive from a ludological lens, rather than from a literary or representational perspective.

As such, copyright tends to overemphasize physicalist characteristics, objects, frequently applies analytical traditions that best correspond to physicalist traits and objects, or in ludic terms – representational analytical traditions, and has a tendency to prioritize literary analysis. Accordingly, copyright's object-oriented work ontology is a poor fit for interactive creations. The tendency to prioritize literary characteristics and analysis is reductive, as it diminishes the novel tools which enable unique approaches to narrative expression which interactive creations can leverage. And copyright cannot accommodate interactive creations because their expressive approach cannot be described by representational models. Therefore, the extent which interactive creations are underprotected, the reason why copyright has reached incoherent conclusions regarding interactive creations, and the reason why literary characteristics have been significantly diluted, is because copyright's physicalist and representational approach is inappropriate for interactive creations which are experience driven and ludic.

Interactive creations thus differ from conventional works in the extent which they defy reification through objects and copyright's representation driven principles. Because they communicate and express through experience, the work is relocated even further away from the object. And interactivity serves to further destabilize the ontology,

making the artificial crystallization of the work into an object or specific instances and representations even more incorrect than it might be for conventional works. If copyright seeks to appropriately accommodate interactive creations, copyright can either choose to diminish its protection, recognizing that experience and interaction lie beyond its remit, or expand it, and reconceptualize how it approaches subject matter and works. In either case, there are repercussions beyond interactive creations and carry consequences for copyright and its existing subject matter more generally.

If copyright elects to limit the scope of its protection, and excludes interactive creations and non-representational characteristics, then it means that interactive creations, and similar non-represented or partially represented works have little protection under copyright. And that in assessing video games and similar interactive works, copyright may wish to be more cautious with diluting the legitimacy of its protection for the purposes of indirectly protecting experience. Furthermore, if copyright excludes interactive creations or experience driven creations on the basis that they lack a clear corresponding object, or because they are incapable of being represented, it suggests that copyright may then need to reconsider how expansive copyright should be in the context of its object-oriented approach and representational analytical framework.

At the minimum, it confirms that contemporary creative practices – such as with conceptual art that relocates the art away from the object, are to remain outside of copyright's remit. And suggests that copyright cannot protect video games qua video games, but instead must subdivide them into individual works which correspond to the various subject matter contained within them. Which in turn introduces a need for guidance on how creations are to be subdivided into individual works. It is also not obvious how this emphasis on representation and form can be reconciled with approaches which, like Berne, declare that works are to be recognized regardless of their "mode or form".[876] And adopting these restrictions implies that copyright is a system that is ultimately more concerned with protecting objects as creative commodities rather than the creativity found within works. Which if true, comes with its own set of complications. For instance, it could affect authorship determinations

[876] Berne Convention for the Protection of Literary and Artistic Works art. 2(1), Sept. 9, 1886, as revised at Paris July 24, 1971, and as amended Sept. 28, 1979, 102 Stat. 2853, 1161 U.N.T.S. 3.

where the action or decisions of the author may not strictly correspond to the object itself. Similarly, this emphasis on objects and fixed representations also seems to imply a bias towards analogue media over digital, and it might mean that even conventional works in the context of digital environments may struggle to be protected without explicit rules which clarify how and when these potentially inchoate works are fixed and presented, or represented for the purposes of protection and analysis.

Moreover, if copyright does, implicitly or explicitly recognize that its foremost concern is with representations and objects, is less about promoting creativity, and is more about commercial protection for creative commodities, then it may mean that principles or concepts which are supported by justification theories that concern promoting creativity ought to be discarded or reconceptualised. Likewise, copyright may also need to examine the tools copyright relies upon in protect works. For instance, copyright must assess the extent which it provides protection against substantially similar works and over immaterial characteristics. And it may need to evaluate whether relying on tools like the dichotomy is correct if ultimately copyright concerns physical representation and objects, more so than expressions which are intangible and abstract from their material representation.

Conversely, if copyright seeks to expand its framework to better include interactive creations and experience driven creations, there are complex questions and issues which follow. For instance, how might copyright need to reconceptualize subject matter lists, especially those which predominantly concern objects? Simply expanding the enumerated objects in the subject matter lists does not seem sufficient, or at least does not address the fundamental issue surrounding creations which either lack or do not correspond strictly to objects. Is the better solution then to shift the focus of the lists away from objects and representations and introduce other characteristics which help clarify the kinds of works and subject matter copyright protects? Or should copyright instead reconsider the emphasis it places on subject matter lists? And depending on what copyright decides, what implications does this carry for principles like the dichotomy and how might it affect other assessments like authorship or infringement?

For example, if copyright elects to re-evaluate what it excludes from protection, such as software in the context of video games, does copyright need to design specific rules

which operate only in the context of video games, and if so, how are these rules to be developed and applied? If copyright recognizes that works and protection extend beyond objects and representations, then how might it approach authorial assessments? It seems questionable for copyright continue to propagate pre-industrial ideas about authors in relation to the object. Likewise, it seems dubious for copyright to apply assumptions about the nature of authorial activity in relation to fixed creations to assess inchoate creations which lack that precise fixation. Similarly, if copyright recognizes that the work does not strictly exist in a representation, does it need to adapt its approach to analysis? In light of ludic observations, it seems incorrect to compare static representations for the purposes of infringement, and it does not seem appropriate to approach analysis relying on assumptions about linearity or architecture that follow from literary traditions.

For European copyright, there are additional issues, and expanding subject matter to include interactive creations and intangible experience seems particularly difficult in light of *Levola*.[877] Where the rhetoric applied in the Attorney General opinion, and to a lesser degree in the CJEU ruling seems to include a latent theme that works need to be capable of representation, and that protected aspects of works need to be capable of being represented. To elaborate, not only does the court in *Levola*[878] refer to 2(1) of the Berne convention in defining work eligibility, which itself reiterates the importance of subject matter lists, but also introduces what appears to be an additional qualification that works must be "identifiable with sufficient precision and objectivity".[879] Which seems to privilege objects and representations since more so than experience and simulation, they are capable of being either tangibly fixed in objects, or identified with that requisite precision and objectivity. Moreover, when read alongside the AG opinion which similarly refers to article 2(1) of Berne, which also highlights that a common theme of the outlined creations is that they can be "perceived visually or aurally";[880] and which also seems to infer a requirement for representation (albeit not graphically) for there to be sufficient precision and objectivity; it seems that there are additional thresholds which might prove difficult for interactive and experience driven works to

[877] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV* (n 39).
[878] ibid.
[879] ibid.
[880] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV, Opinion of AG Wathelet* [2018] at [51].

overcome. Especially since the emphasis on perception visually or aurally provided as illustrative examples – books and musical compositions. Conceptions of a work which as discussed, follows from a representational ontological model. And although it might be argued that works in general aren't truly capable of being identified objectively and precisely, for instance recalling post-structural critiques of literature which contend that texts are fundamentally subjective and dependent on their reader, there are nonetheless two crucial differences which separate works with a representational ontology and works anchored in experience. As McCutcheon argues:

"While we may all have different impressions of conventional copyright works, there are at least two important differences between those works and taste. First, there is a single, uniform material record of literary, musical, artistic and dramatic works that we respond to, even if idiosyncratically. These works manifest (or can manifest) in the universal and objective languages of musical notes, written words, and represented images. Those same words and music may provoke different emotional, psychological and conceptual responses, but they all emanate from a single starting point which is expressively certain (if not always materially recorded)…This is not the case with taste, which does not chemically crystallise as taste until we taste, touch and smell the substance in which it inheres"[881]

This reasoning similarly applies to interactive creations. Unlike conventional copyright works which are ontologically prior, taste and interactive creations are dependent on the participation of the 'audience' for the work to come into existence proper. Whilst the way the work may eventually be experienced can be shaped and pre-empted to a degree, it is ultimately contingent on experience to be fully realised. As such, if taste is exempted from protection because it lacks a prior work that is fixed and expressively certain, are interactive creations likewise excluded because they lack a stable and ontologically prior work?

Finally, what measures must copyright adopt to introduce clarity, coherence and limitations in the absence of precision and objectivity as requirements. Or with a

[881] Jani Mccutcheon, 'The Concept of the Copyright Work under EU Law: More Than a Matter of Taste' [2019] European law review.

diminished emphasis on material characteristics and representations as tools for curtailing copyright's remit and as tools which ensure clarity. *Levola*[882] seems to suggest that if scientific analysis eventually could facilitate sufficiently precise and objective analysis, then smell or taste might be capable of being protected.[883] As such, what must copyright introduce in order to provide the necessary precision and objectivity to clarify what is being protected? Should courts seek to rely on expert opinion from experts and scholars studied in the nuances of video game ontology and expression, similar to how expert testimony is presented in patent cases? And if so, should copyright adopt such an approach for all subject matter as well?

Providing a full analysis of the implications which either come with expanding or limiting copyright's subject matter to include interactive creations, experience driven works, and ludic expressions, goes beyond the remit of this thesis. And the references made to these potential problems serves more to demonstrates the questions and consequences which can arise, rather than to prescribe any solutions. Nonetheless, it is clear that moving forward, copyright cannot continue to expand its protection in this meandering and piecemeal manner. Shoehorning creations into its existing models and traditions is unsatisfactory, and even expanding the list only provides a partial resolution. There needs to be a more robust interrogation of copyright's subject of protection, and clear thoughtful guidance on the subject of its protection is not only desirable but necessary. The importance of interactive creations and the recognition that their ludic expressive affordances require alternative theoretical models and principles than those outlined in copyright presents not just a challenge to copyright, but an opportunity to re-examine both how far copyright truly extends, and the nature of its remit. What ludology demonstrates is not just the theoretical gap which prevents copyright from adequately accommodating interactive creations but reveals a deeper conceptual gap in copyright's understanding of its works, its scope and its lexicon.

[882] *Case C-310/17 - Levola Hengelo BV v Smilde Foods BV* (n 39).
[883] ibid at [43].

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Appendix A: Table of Cases

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Atari, Inc v Amusement World, Inc [1981] 547 F Supp 222

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Atari, Inc v North American Philips Consumer Electronics Corp (1982) 672 F2d 607 (7th Cir)

Baigent v Random House Group Ltd [2008] EMLR 7

Baker v Selden 101 US 99 (1879)

Bauman v Fussell [1978] RPC 485

Benay v Warner Bros Entertainment Inc (2010) 607 F 3d 620 (9th Cir)

Brighton v Jones [2004] EWHC 1157

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Donoghue v Allied Newspapers Ltd [1938] Ch 106

Gaiman v McFarlane (2004) 360 F3d 644 (7th Cir)

Galaxy Electronics Pty Ltd v Sega Enterprises Ltd [1997] FCA 403

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Lucas v Williams (1892) 2 QB 113 (QB)

Lucasfilm Ltd and others v Ainsworth and another [2012] 1 AC 208

Mannion v Coors Brewing Co (2005) 377 FSupp2d 444

Micro Star v FormGen (1998) 154 f3d 1107 (9th Cir)

Midway Manufacturing Co v Artic International, Inc (1983) 704 F2d 1009 (7th Cir)

Midway Mfg Co v Bandai-American, Inc (1982) 546 F Supp 125 (DNJ)

Millar v Taylor (1769) 4 Burr 2303

Navitaire Inc V Easyjet Airline Company and Another [2004] EWHC 1625 (Ch)

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Nova v Mazooma [2006] EWHC 24

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Pope v Curl (1741) 26 ER 608

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Robin Ray v Classic FM [1998] FSR 622

Rogers v Koons (1992) 960 F2dd 301 (2d Cir)

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SAS Institute v World Programming Ltd [2013] EWHC 69 (Ch)

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Temple Island Collections v New English Teas (2012) 1 EWPCC

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Tonson v Collins (1762) 1 Black W 321

Video Software Dealers Association v Maleng (2004) 325 F Supp 2d 1180

Appendix B: Table of Legislation

International:

Berne Convention for the Protection of Literary and Artistic Works, Paris Act of 24 July 1971, as amended on 28 September 1979.

UK:

Copyright Act 1911

Copyright, Designs and Patents Act 1988

USA:

Copyright Act of 1976, Pub. L. 94-553, § 105, 90 Stat. 2541 (codified at 17 U.S.C).

EU:

Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs,

Directive 2001/84 on the resale right for the benefit of the author of an original work of art [2001] OJ L272/32 (Resale Right Directive) art.1(1).

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Data East Corporation, ‘Fighter’s History’ (1993) Data East Corporation

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