

# ‘The Changes that Face Us’: Science Fiction as (Public) Legal Education

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## Abstract

Much has been written on how science fiction allows us to interrogate imagined societal changes and potential yet-to-be realised futures. It also allows those who consume such texts to reflect upon their contemporaneous societies. This paper refocuses this understanding of science fiction from an original and novel perspective, arguing that science fiction texts perform an educative function and can be considered a form of public legal education. To this end, this paper argues that science fiction performs a jurisprudential function in its treatment and popular presentation of legal issues and themes. Science fiction allows audiences and consumers to conceptualise abstract jurisprudential concepts, whether they are engaged with less interactive media (such as television or film) or experimenting more actively with these concepts via dynamic media (such as video games and tabletop role-playing games). This distinction between less interactive and more interactive media draws upon previous work by Newbery-Jones in 2015 that examined the jurisprudence of video games and the phenomenology of justice. It also focuses on science fiction’s potential to contribute to formal and public legal education. Finally, this paper explains the importance of public legal education in the twenty-first century and highlights science fiction’s critical role in encouraging engagement with jurisprudential themes and legal subject matter within the shifting sociopolitical landscape of the last decade.

**Keywords:** Legal education; public legal education; science fiction; jurisprudence; justice; phenomenology.

## Introduction

*Modern science fiction is the only form of literature that consistently considers the nature of the changes that face us, the possible consequences and the possible solutions. That branch of literature which is concerned with the impact of scientific advance upon human beings.*

Isaac Asimov, ‘Other Worlds to Conquer’ *The Writer* (1951)

On 11 May 1978, during a lecture at the University of Massachusetts Amherst (recorded and broadcast on their campus radio station, WFCR), Isaac Asimov lectured on his predictions for the future of our planet.<sup>1</sup> While he glibly stated that the only safe predictions are obvious predictions, he did proceed to predict that the world would be faced with a series of crises and problems that would be caused by technological development, leading to unforeseen and unprecedented population growth and resultant challenges posed to our finite energy resources (particularly fossil fuels). He discussed solutions to these crises that covered worldwide approaches to energy security, including the potential for space settlements and the translocation of industry off-world. Asimov also argued for global women’s liberation, citing the lack of global equal rights as a key problem in rising birth rates, while also predicting an end to racism, leading to a peaceful, ‘bored’ world but promoting a ‘brotherhood of intelligence’,<sup>2</sup> a global humanity with shared goals and aims.

<sup>1</sup> Asimov, Lecture by Isaac Asimov.

<sup>2</sup> ‘A brotherhood of intelligence’ is a gendered term from Asimov’s writing and is based within the context and Zeitgeist of the time he was writing. It demonstrates how some science fiction (particularly older science fiction) reproduces prejudicial concepts despite its ideal of a fair future.



Asimov gave no timeline for these predictions, but their accuracy is stark, albeit rather understated. It could certainly be argued that in the 30 years since his death, the problems posed by Asimov have come to pass and further besides. There can be no accusation of hyperbole to state that humanity is currently facing unprecedented global challenges. The following is by no means an exhaustive list. We are experiencing serious crises because of climate change, caused by our over-reliance on fossil fuels, a rapidly growing population and the resultant issues with water, food and energy security. More recently, the corporatisation of space, the exploitation of big data, a rise in far right-wing ideologies fuelled by misinformation and fear, and a mistrust of experts and science pose substantial problems to societies, however we conceive them. These global challenges have magnified and deepened inequalities already rooted in society, which have never been more apparent than during the COVID-19 pandemic. Finally, catastrophic weather events have become more frequent and more devastating, often further illustrating the multitude of inequities between states and peoples across the globe. However, the global solutions to such global crises are yet forthcoming, and a ‘brotherhood of intelligence’ is far from making the shift from science fiction to science fact.

Obviously, the consequences of these myriad challenges are constantly unfolding, and solutions to these global issues are constantly being developed. The future is still (and will undoubtedly remain) incredibly uncertain, and Asimov’s predictions of such solutions to the problems wrought by the changes that face us may still come to pass. Nevertheless, science fiction has always been an important site of contemporary reflection and a forum for contemplating imagined futures, the two often being inextricably linked.<sup>3</sup> Science fiction has always explored contemporary challenges, inequalities and current events while leaning heavily into tropes that consider imagined utopias and potential ‘terrifying futures’<sup>4</sup> for society, humanity and the earth.<sup>5</sup>

This paper argues that science fiction has two key functions: a jurisprudential function and an educative one, and it is through this engagement with imagined futures that we are confronted with a range of jurisprudential themes and socio-legal challenges that have resonance in contemporary society. As Travis highlighted in 2011:

Science fiction allows for a space in which alternate social and legal systems, conditions, and variables can be considered, and it is beneficial for law to consider these alternate situations, given that they are often inspired by popular attitudes. By considering science fiction’s representations of the different approaches that could be taken to possible legal problems of the future, the law will be better equipped to deal with these problems when they eventually arise.<sup>6</sup>

Building on argument as a keystone and drawing on work published in 2015,<sup>7</sup> this paper will argue that science fiction performs a jurisprudential function in its treatment and popular presentation of legal issues and themes. It allows audiences and consumers to conceptualise abstract jurisprudential concepts (such as justice) when engaged with less interactive media (such as literature, television or film) and engage or experiment with more agency in dynamic media (such as video games and tabletop role-playing games; RPGs). This work will draw upon pertinent examples from less interactive media and dynamic media to evidence the discussion and demonstrate the educative function of such texts.

This work will interrogate the specific role of science fiction texts as a source of consumption of popular culture and will argue that science fiction is a form of legal education and public legal education. Specifically, it will argue that science fiction texts perform an educative function, allowing audiences and consumers to engage with contemporary global challenges and their consequences in a reflective way while also encouraging consideration of their individual role in the progress towards these imagined futures.

In this paper, ‘legal education’ refers to the education of law students in a structured educational setting, whereas ‘public legal education’ refers to encouraging broad public engagement with legal subject matter or jurisprudential themes. Public legal education seeks to empower the public by increasing their confidence and capability to deal with law-related social problems and understand the role that jurisprudential concepts play in society. These skills are particularly important when we consider the rise of misinformation in the post-truth age, the importance of communal efforts to address inequalities and global challenges and an obvious knowledge gap in public understanding of basic democratic principles.

<sup>3</sup> For example, Haldeman, *The Forever War*; Dick, *Do Androids Dream of Electric Sheep?*; Huxley, *Brave New World*; Le Guin, *The Dispossessed*; Atwood, *The Handmaid’s Tale*; Dugas, *Deus Ex*. All these texts speak to advancements in society and provide a site of critical reflection on current technological or societal issues and change.

<sup>4</sup> McCracken, *Pulp*, 24.

<sup>5</sup> For example, Butler, *Parable of the Sower*; Ballard, *The Drowned World*; Dick, *The Man in the High Castle*; Robinson, *New York 2140*; Wachowski and Wachowski, *The Matrix*; Blomkamp, *Elysium*; Badowski, *Cyberpunk 2077*. These are just a handful of examples of where utopia and dystopia reflect, through a mirror darkly, contemporaneous issues.

<sup>6</sup> Travis, “Making Space,” 242.

<sup>7</sup> See, generally, Newbery-Jones, “Answering the Call of Duty.”

Finally, this paper will explain the importance of public legal education within the shifting sociopolitical landscape of the last decade and highlight science fiction's critical role in encouraging engagement with jurisprudential themes and legal subject matter. This focus on the jurisprudential function of science fiction texts will constrain the discussion in this paper to legal issues and themes, but this paper does not in any way seek to argue against the nature of science fiction as educative in a more general sense. The educative function of science fiction is currently under studied in pedagogic and cultural literature, and this paper addresses this lacuna. It will refocus academic scholarship to consider the cultural impact of science fiction texts on consumers in an educative way and argue for the important place such texts hold in the landscape of popular legal culture.

This paper will now explore the role of science fiction in examining our imagined (legal) futures and argue that science fiction has an effective pedagogic role in our contemporaneous cultural landscape.

### Science Fiction: Our Imagined (Legal) Futures

To return to the quotation that opened this paper, Asimov highlighted how science fiction is the 'only form of literature that consistently considers the nature of the changes that face us, the possible consequences and the possible solutions'.<sup>8</sup> It is within the consideration of such changes, consequences and solutions that reflection on contemporary society simultaneously takes place, a reflection undertaken by producers and consumers. This reflection is critical, relating the imagined experiences and futures of others to our own lived experience. Tranter described science fiction as 'the West's mythform – that it is the dreaming place for the West's technological futures',<sup>9</sup> and it is within this myth form that producers and consumers (re)imagine possible futures by direct reference to their own. McCracken also discussed the role of science fiction in these terms, stating:

Science fiction is perhaps the most innovative of popular forms. It is also one of the most critical. The representation of all new worlds involves a process of reflection and comparison with a society as it is now. This means that science fiction can have a consciously utopian function; but it can also extrapolate the worst social trends, warning of terrifying futures.<sup>10</sup>

Asimov, Tranter and McCracken have all discussed the role that science fiction has in the interrogation of possible futures, and due to the ubiquitous nature of law, it is unsurprising that law or legal themes permeate the science fiction canon. However, it is worth noting that such legal themes are not always overt representations of law, lawyers or the legal system<sup>11</sup> but also include a range of legal, legally related and jurisprudential themes. Themes such as justice, (in)equality, culture wars, political and legal corruption, energy and food security, conflict, personhood, corporate culture and (de)colonisation all provide opportunities for engagement and reflection with legal subject matter and questions for jurisprudence in contemporary and imagined futures.

The relationship between law and science fiction has undergone considerable investigation in the last decade,<sup>12</sup> and scholarship has focused on different legal and jurisprudential challenges posed by the rapid advancement of technology.<sup>13</sup> The scholarship in this area has emerged as rich and diverse, exploring a multitude of jurisprudential themes and legal concepts.<sup>14</sup> It is no surprise that legal scholarship has engaged so readily with science fiction because science fiction can provide legal scholars with the opportunity to engage with potential legal challenges posed by shifting social conditions, technological advances and reconceptualised political and legal institutions, alongside considering the consequences of our action or inaction on the social, environmental, political or legal challenges of today.

<sup>8</sup> Asimov, "Other Worlds to Conquer."

<sup>9</sup> Tranter, "The Speculative Jurisdiction," 817.

<sup>10</sup> McCracken, Pulp, 123–124.

<sup>11</sup> These formalised roles do exist in science fiction but are far from commonplace. Examples include Romo Lampkin in *Battlestar Galactica* as well as the numerous hearings (including judicial, military and extradition) in *Star Trek*.

<sup>12</sup> See, generally, Travis, "Making Space"; Travis, "Interrogating Absence"; Tranter, "The Speculative Jurisdiction"; Tranter, Living in Technical Legality; Hamilton, Impersonations; Hamilton, " 'Human no like smart ape' "; Peters, " 'The Force' as Law"; Peters, A Theological Jurisprudence; Sharp, " 'Fear' and 'Hope' in Graphic Fiction."

<sup>13</sup> Including Legal Personhood – Travis, "We're All Infected"; Giddens, Graphic Justice: Intersections of Comics and Law; Peters, "I, Corpenstein"; Jardine, "The Pedagogic Value of Science Fiction"; and Legal Actors – Travis, "Interrogating Absence"; Mitchell, "Paradoxes and Patriarchy"; Effross, "High-Tech Heroes."

<sup>14</sup> These include copyright law – Stewart, "Do Androids Dream"; constitutional law – Yuratch, " 'The Beast Below' "; Casey, "How Liberty Dies"; neuroenhancement – Errigo, "Neuroenhancement and Law"; law and economics – MacNeil, Lex Populi; state surveillance – Re, "Imaging Perfect Surveillance"; reproductive rights – Horn, "Establishing Boundaries"; Auer, "The 'Homeless' Embryo and the Absent Mother"; Lavi, "Cloning International Law"; international law – Benatar, "International Law, Guardian of the Galaxy?"; Ben-Naftali, "The Human Conditioning"; Kang-Riou, "Science Fiction Cinema and the Nature of International Law"; and decolonisation – Bhattacharjee, "The Postcolonial Galaxy or a Galactic Postcoloniality".

Yet, the relationship between science fiction, popular culture and the law is dictated by a symbiotic relationship. Travis has argued how:

Science fiction moves into the popular vernacular, and from there, eventually, into the legal lexicon. By focusing on relationships between culture and technology, science fiction can predict and confront social and technological change before these matters have been considered by the judiciary.<sup>15</sup>

Herein is the fundamental value of science fiction as a cultural text and as a focus for legal scholarship. Science fiction always looks to the future, even if located in an imagined past, and examines the evolving or collapsing relationship between society and technology.<sup>16</sup> Traditionally, law has always struggled to look forward;<sup>17</sup> therefore, science fiction provides an important text for the consideration of contemporaneous or future challenges for law and the legal system, essentially creating a theoretical and conceptual sandbox in which the various challenges articulated in science fiction can be interrogated before they are considered by the formal legal process. Science fiction stands apart from other genres in this respect, as while law's temporality is often backwards focused, science fiction encourages the consumer, and at times law, to look forward and consider problems through multiple temporalities.<sup>18</sup>

The opportunity afforded by science fiction, namely the ability to engage with such imagined futures or imagined legal futures, is not only the focus of academic research and scholarship but also a focus for all consumers of cultural texts.<sup>19</sup> Popular culture texts lead public opinion and reflect it. In his work on the representation of lawyers in movies, Michael Asimow described how 'popular culture reflects attitudes and myths that are already deeply rooted in the common psyche',<sup>20</sup> and Richard Sherwin explained how 'vivid images and dynamic image flow draw and hold attention, stick in memory, and authorise belief'.<sup>21</sup> William MacNeil also argued that sources of popular culture:

not only reach a much larger audience than standard legal texts, but potentially, and even more democratically, they also help restore topics of jurisprudential import – justice, rights, ethics – to where they belong: not with the economists, not with the sociologists, not even with the philosophers, but rather with the community at large.<sup>22</sup>

The ability of texts of popular culture to resonate with beliefs held by consumers alongside their persuasive characteristics to lead public opinion demonstrate the influence that science fiction has on encouraging public engagement with these imagined futures.

It is necessary at this juncture to acknowledge the importance of popular cultural texts in forming and reflecting opinions and beliefs in the consumers' minds and the influence these texts have on the construction of popular legal culture.<sup>23</sup> It is particularly true that 'any attempt to understand adequately the way law works in contemporary society requires that popular culture be taken into account'.<sup>24</sup> While Sherwin's words ring true for all popular culture, they ring truer with law and legal subject matter due to the distance that individual consumers of popular cultural texts have with the law, lawyers, the legal process and more abstract jurisprudential concepts. And herein lies the value of science fiction texts for public pedagogies and the educative value of these texts.

Despite the importance of the topic, the role of science fiction and its relationship to legal pedagogy are significantly under researched, and the role of science fiction in engaging the public in reflections on the law, legal process and jurisprudential themes is currently absent from the literature. Pedagogic research that has studied the relationship between science fiction and education has focused mainly on the use of cultural texts in the delivery of subject-specific education (particularly in subjects

<sup>15</sup> Travis, "Making Space," 248.

<sup>16</sup> Travis, "The Future of Justice."

<sup>17</sup> Wistrich, "The Evolving Temporality of Lawmaking."

<sup>18</sup> Travis, "The Future of Justice."

<sup>19</sup> MacNeil, *Lex Populi*, 1–2.

<sup>20</sup> Asimow, "Bad Lawyers in the Movies," 549.

<sup>21</sup> Sherwin, "Law's Screen Life," 107.

<sup>22</sup> MacNeil, *Lex Populi*, 1–2.

<sup>23</sup> Legal culture can be defined as "ideas, attitudes, values, and opinions about law held by people in society. Everyone in society has ideas and attitudes, and about a range of subjects – education, crime, the economic system, gender relations, religion. Legal culture refers to those ideas and attitudes that are specifically legal in content – ideas about courts, justice, the police, the supreme court, lawyers, and so on" in Friedman, "Law, Lawyers, and Popular Culture," 1579. Therefore, popular legal culture is defined here as the ideas, attitudes, values and opinions about law and legal institutions that can be understood from an analysis of popular cultural texts.

<sup>24</sup> Sherwin, *When Law Goes Pop*, 17.

that have some direct relevance to the science themes in science fiction),<sup>25</sup> but there has been some research on the role of science fiction in education more generally.<sup>26</sup> There has been even less focus on the relationship between science fiction and legal pedagogy.<sup>27</sup> Campbell and Eliason demonstrated how science fiction could be used to ‘consider alternate worlds that do not reflect mainstream attitudes but are particularly good for critiquing the law from a social justice standpoint’.<sup>28</sup> They explained how select science fiction texts are used in their course to explore contemporary challenges, the role of the ‘law, its work in the world, and how it might be changed’.<sup>29</sup> Both Nottage and Maharg also used science fiction narratives and tools as a way to interrogate potential futures for legal education.<sup>30</sup> Yet, the focus on science fiction as a form of public education is absent from the general pedagogic and subject-specific (legal) literature. This lacuna in the existing scholarship requires attention, and the originality of this paper lies in addressing this absence.

However, it has to be acknowledged here that the reason for such a lacuna grows from the primary role of popular cultural texts as sources of entertainment, not education, and that they are not likely to be consumed in an educative context by the public more generally. While this may affect the critical capacity of the audience, cultural works are still able to shape and influence ideas; they act as a catalyst for reflection and are crucial in allowing the public to conceptualise often abstract jurisprudential themes and legal concepts.

This paper will now discuss why science fiction texts are such crucial texts in our cultural landscape. It will focus particularly on the educative characteristics of science fiction texts, as sites of reinforcement of existing beliefs and understandings around contemporaneous legal issues and as sites of abstract conceptualisation of jurisprudential themes and concepts.

### Science Fiction Texts as Sites of Reinforcement and Abstract Conceptualisation

Science fiction explores legal and jurisprudential concepts in (re)imagined worlds, and these cultural texts both reflect and lead public opinion. In a legal context, the power of popular culture in relation to law has been argued by Posner and Sherwin, who argued that the law, lawyers and legal processes could be witnessed via cultural texts, which could lead to reinforcement or reformation of individual understandings of law and legal institutions.<sup>31</sup> This is particularly true for those in society who have little contact or need for lawyers or the formal legal process.

However, it must be argued that legal processes and legal actors are much more tangible to the public than themes such as justice and injustice, equality and inequality, retribution, restoration, distribution and broader jurisprudential concepts.<sup>32</sup> These themes are far more abstract and often difficult for the public to conceptualise and experience in a way that has a meaningful impact on their understanding. Concepts such as these are often difficult to define. Newbery-Jones argued that there is an ‘objective’ language of the law,<sup>33</sup> and it is argued here that such objective meanings are coloured by the subjective interpretation and experiential interactions with such themes in the life of the individual, which in turn affect social and communal understandings of such concepts. Pallard and Hudson described how:

Law is a social structure, which has its origin in politics; it is one of the modes of expression of meaning and of giving life to values in a world where there is no a priori meaning. Since the meaning of language is never completely determined, never wholly constituted, judges may use a rule, for example, in a new manner. The rule now is being made to say something new but which it was already capable of saying. This never happens arbitrarily. Law interacts with ethics and politics yet remains

<sup>25</sup> For example, see, generally, Gough, “Environmental Education”; Gough, “Specifying a Curriculum”; Surmeli, “Examination the Effect of Science Fiction Films”; Bates, “Science Fiction in Computer Science Education”; Kohno, “Science Fiction Prototyping”; de Oliveira Moraes, “Science Fiction and Science Education”; Nunan, “Science, Science Fiction, and a Radical Science Education”; Jordan, “Science Fiction”; Segall, “Science Fiction in the Engineering Classroom”; Friend, “Strange Bedfellows”; Fraknoi, “Teaching Astronomy with Science Fiction.”

<sup>26</sup> For example, see, generally, Vrasidas, “Science Fiction in Education”; Brake, “Science Fiction in the Classroom”; Martin-Diaz, “Science Fiction Comes into the Classroom”; Michalsky, “Manipulating our Futures”; Quina, “Science Fiction as a Mode for Interdisciplinary Education”; Stephens, “Science or Science Fiction?”; Andrews, “To Boldly Go Where No Learner Has Gone Before.”

<sup>27</sup> Most notably, Campbell, “Teaching Law” but also Nottage, “Cyberspace and the Future of Law” and Maharg, *Transforming Legal Education*.

<sup>28</sup> Campbell, “Teaching Law,” 165.

<sup>29</sup> Campbell, “Teaching Law,” 165.

<sup>30</sup> An imagined educative future is excellently executed in Maharg, *Transforming Legal Education* and his imagined legal education model in ‘The Silken Keyboard’.

<sup>31</sup> Posner, “Narrative and Narratology in Classroom and Courtroom” and Sherwin, *When Law Goes Pop*, 17.

<sup>32</sup> This list of themes is not designed to be all encompassing. Themes may focus on broader, quasi-legal or jurisprudential concepts such as climate justice, food security, border or immigration security, LGBT+ rights or racial equality, all of which have a legal dimension and intersect with more recognised jurisprudential concepts.

<sup>33</sup> Newbery-Jones, “Answering the Call of Duty,” 87.

distinct because each mode engages in social ordering in its own characteristic way. The task of law is to promote justice, which is conceived as universality and is closely linked to the idea of individual freedom, and to allow the disenfranchised to be respected.<sup>34</sup>

With this experience of law, we find the phenomenology of law. Previous scholars have argued that law's very existence is a phenomenological experience.<sup>35</sup> The pervasive nature of law in society and its inextricable connection to culture<sup>36</sup> ensures that phenomenological<sup>37</sup> perspectives can be utilised in jurisprudential thought.<sup>38</sup> Smith defined the science of law as:

a science of human experience founded on culture and its object is the experience of liberty. Law is a cultural object which people create in function of certain values; law is thus not neutral towards values and the value constituted by law is a positive valuation; there is no transcendental goal, such as justice, immanent to law which law must realize. What is immanent is the understanding of the positive evaluation.<sup>39</sup>

The link between law and culture is fundamental, and the role that popular culture plays as a site of reinforcement and abstract conceptualisation of legal themes cannot be underestimated. Further, law and legal rules in both common law and codified systems are subjectively understood and experienced, so the phenomenological examination of law recognises the experience of individuals and social groups with respect to their involvement, knowledge and immersion in legal structures and social norms.<sup>40</sup>

This phenomenological understanding of law allows us to consider the intimate relationship between the law as written and how we all experience law in our everyday lives. The individual experience of law may differ from the societal 'lived experiences'. Individuals explicitly and implicitly experience law, their behaviour is impacted and modified by such experience of legal concepts and their conscious understanding of their existence in relation to legality is informed.<sup>41</sup> In comparison, jurisprudential themes such as justice exist as something far more abstract – an abstract concept that can encompass multiple interpretations and meanings – often dictated by a subjective conception formed in the individual's mind by a range of external factors. Even 'throughout the history of legal theory, the concept of justice has been interrogated, critiqued and reconceptualized, yet it is impossible to define justice beyond a number of abstract notions related to ethics, moral good, rationality and jurisprudence'.<sup>42</sup>

Within popular cultural texts, there is an opportunity to reflect upon understood systems and institutions of law while encouraging engagement with conceptualising more abstract jurisprudential themes. Obviously, science fiction enables this reflection but often encourages an additional layer of reflection based upon comparisons between what is and what could be, the contemporary and the imagined or reimagined. Science fiction stories engage us due to their imagined but relatable and recognisable worlds and themes that have some resonance with us today. However, different texts provide different forms of engagement and levels of interactivity. Phenomenology provides a philosophical and qualitative framework through which to examine and explore the consumer's experience through a range of media.<sup>43</sup> As Smith outlined:

We all experience various types of experience including perception, imagination, thought, emotion, desire, volition, and action. Thus, the domain of phenomenology is the range of experiences including these types (among others). Experience includes not only relatively passive experience as in vision or hearing, but also active experience as in walking or hammering a nail or kicking a ball.<sup>44</sup>

<sup>34</sup> Pallard, "Phenomenology of Law," 647.

<sup>35</sup> See Reinach, "The A Priori Foundations of the Civil Law" and Newbery-Jones, "Answering the Call of Duty."

<sup>36</sup> See, generally, Aristodemou, *Law and Literature*.

<sup>37</sup> Phenomenology exists as a philosophical theory that examines the "structures of experience or consciousness." More specifically, "phenomenology is the study of 'phenomena': appearances of things, or things as they appear in our experience, or the ways we experience things." Thus, it is the meanings that "things have in our experience"; Smith, "Phenomenology." Phenomenology studies conscious experience from the subjective or first-person point of view. Phenomenology is about being grounded in the experience of individuals, so this theory has been deployed as a research tool to examine the individual's experience in contemporary society. See also Newbery-Jones, "Answering the Call of Duty."

<sup>38</sup> Newbery-Jones, "Answering the Call of Duty," 87.

<sup>39</sup> Smith, "Phenomenology."

<sup>40</sup> Newbery-Jones, "Answering the Call of Duty," 87.

<sup>41</sup> Newbery-Jones, "Answering the Call of Duty," 88.

<sup>42</sup> Newbery-Jones, "Answering the Call of Duty," 88.

<sup>43</sup> Newbery-Jones, "Answering the Call of Duty," 86.

<sup>44</sup> Smith, "Phenomenology."

This is an important distinction when cultural texts are considered, especially since the growth of more immersive and active sources of popular culture in the late twentieth and twenty-first centuries. While there is a distinction between texts that allow the consumer to engage with less agency and the interactive experimenter, both have an educative influence in encouraging reflection and engagement with legally related subject matter and jurisprudential themes in popular cultural texts.

While this paper will now explore different types of texts, it is worth highlighting here the intimate link between science, technology and developing media as media for the transmission of science fiction. Science fiction stories have often been at the forefront of new media, quick to draw upon technological advancements to represent these (re)imagined worlds. This includes media where the audience engages with less interactivity and agency or with more interactive engagement with narratives and rule systems. Science fiction stories were a mainstay of the early mass-produced ‘pulp’ publications,<sup>45</sup> produced in a written and illustrated form, and were widely popular in the later nineteenth century as serialised novels. The works of H. G. Wells were immensely popular upon their initial serialisation and brought science fiction to the masses. The work of George Méliès drew upon science fiction stories to push the envelope of cinema and special effects. Audiences were captivated by his *A Trip to the Moon* (1902) and *The Impossible Voyage* (1904). Later, *Buck Rogers* (1950–1951), *Commando Cody: Sky Marshall of the Universe* (1953), *Science Fiction Theatre* (1955–1957), *The Twilight Zone* (1959–1964) and *Doctor Who* (1963–1989) did the same for the small screen, bringing science fiction stories into the homes of millions. It is no surprise that as technological advancement brought video games into arcades and homes, some of the first and most iconic games looked to the stars for inspiration. *Spacewar!* (1962) is largely considered one of the first video games and was the first video game to be played at multiple computer sites. It directly inspired many commercial arcade games and home video games that are familiar to us today. These include *Galaxy Game* (1971), *Computer Space* (1971), *Space Invaders* (1978) and *Asteroids* (1979), most of which started life as arcade games and were re-reported as home video games once the technology followed. Finally, it is no surprise that as every home video game system has moved forward, science fiction titles have often been part of the launch. Examples include the light gun video game peripheral on the Super Nintendo Entertainment System and the release of *Terminator 2: Judgement Day* (1991) or, most recently, the move towards home virtual reality, including *Eve: Valkyrie* (2016). Science fiction subject matter has often been developed alongside step changes in technology; developers and the public are often hungry to explore speculative futures and observe or experience the most imaginative spaces. Science fiction has continued to exist in less interactive media but has also been an important part of more interactive and experimental sources as technology has deepened immersion and engagement with popular texts.

Most texts allow the consumer to engage with less agency, prompted by more limited interactivity. These media include literature, serial and graphic fiction, television, film, music and radio. These cultural texts provide an opportunity for the consumer to act as a privileged observer of the narrative or to be taken on the journey through the text as an officious bystander, seeing the narrative emerging from a multitude of perspectives and in public or intimate settings. Depending on the source material or genre, the narrative can also position the observer in a position dictated by the plot’s direction and/or the chronotope represented. Taking the literary genre of crime fiction, the reader adopts the role of the detective or reads in parallel to the detective’s discoveries as details of the mystery unravel. The same occurs in procedural crime drama, where the viewer follows the detectives and is positioned to uncover the criminal alongside or ahead of the police. Another example is courtroom drama, where the viewer often takes the role of a jury member, listening to the evidence presented and making judgements based on the information presented. Visually, the camera often positions the viewer in the jury box, particularly in American film and television, listening to the forensic oratory presented by the advocates. Science fiction texts are no different, allowing the consumer to witness with little agency the challenges faced by humanity through famine, global disaster, intergalactic strife, battles for survival, space and time travel, new technology and many more tropes. Although these texts allow the user to engage with less agency due to their less-direct interactivity, they allow the viewer to reflect upon what they understand about the subject matter therein and construct or challenge their own understandings of abstract concepts.

However, some cultural texts also allow the consumer to interact and experiment with abstract concepts and themes, making decisions around the progression of the narrative. Video games, board games and tabletop RPGs allow the user to actively engage with the narrative and demonstrate a shift in media with increased agency and interactivity.<sup>46</sup> Pearce argued that the characteristics of video games in the modern age have moved beyond the individual, less interactive experience of narrative found in film, literature and television; instead, modern video games create a medium through which to experience and interact with this narrative more.<sup>47</sup> Pearce explained, ‘the reason that narrative games have gained such popularity is because they

<sup>45</sup> See, generally, McCracken, Pulp.

<sup>46</sup> There are exceptions to this, or less interactive media that facilitates more interactive engagement and provides the user or consumer more agency in progressing the narrative. There can be interactive media such as Choose Your Own Adventure Novels or Black Mirror’s *Bandersnatch*; Slade, Black Mirror: *Bandersnatch*.

<sup>47</sup> Pearce, “Towards a Games Theory of Game,” 143.

borrow what is engaging and interesting about other forms of narrative and use it to enhance the play experience',<sup>48</sup> successfully placing the gamer in a play context alongside a framework of storytelling.<sup>49</sup> The same goes for board games, but particularly for tabletop RPGs. The consumer can dictate and direct their experiences through their choices and the roll of the dice, providing a sandbox for experimentation with more abstract themes. These more interactive experiences facilitated by such texts also allow individuals to engage with more abstract and complex themes, including jurisprudential themes.<sup>50</sup> The fluid structure of such interactive texts allows individual consumers to construct their own narrative within the games, and this, in turn, encourages a more extensive engagement with themes that emerge from the experiential,<sup>51</sup> augmentary<sup>52</sup> and metastory<sup>53</sup> operators. Players must think about their decisions and the possible consequences before deciding how to proceed, allowing the user to conceptualise abstract themes and cognitively engage with such themes.<sup>54</sup> This engagement is especially true for conceptions of justice, including retributive justice, restorative justice, social justice and wider ethical and moral questions.<sup>55</sup>

Finally, cultural texts can incite experiential responses from individuals but can also exist as different types of interactive experiences. For example, video games and tabletop RPGs often position the user within a broader narrative that is responsive to the decisions of the user, and when reflecting upon these decisions, individuals can consider the implications of such decisions and their consequences in the game, shaping their understandings and decisions in future.<sup>56</sup> Even sources where the user is engaged with less agency and interactivity will elicit personal reflection and consideration of pertinent themes; sources that promote interactive experimentation provide a space for investigation and personal engagement.<sup>57</sup> It is this experience of such cultural phenomena, in a constantly evolving sense, which makes engagement with science fiction texts a site of education, particularly in the understanding of more abstract jurisprudential concepts. These concepts are constantly reconsidered, reflected on and re-understood.

This paper will now draw upon the preceding discussion to specifically argue that science fiction texts perform an educative function, especially for the public, and that this educative function engages consumers in a reflective process. This engagement democratises legal knowledge, assists in conceptualising jurisprudential themes and prompts reflection on contemporary society through these imagined futures.

### Science Fiction as (Public) Legal Education

The role that science fiction plays in interrogating (re)imagined futures and the influential role that cultural texts have on consumers arguably defines science fiction texts as sources of individual reflection and sites of legal education. Science fiction should be exploited more extensively in legal education, but its role in popular culture should also be examined more significantly. Science fiction helps us challenge the status quo, encourages us to reflect on our contemporaneous societies and enables us to consider what might be.<sup>58</sup> These are educative functions, and when combined with the influence that popular

<sup>48</sup> Pearce, "Towards a Games Theory of Game," 144.

<sup>49</sup> Pearce, "Towards a Games Theory of Game". However, there are some examples of games that sit purely in a play context, outside any real narrative operators, for example, rhythm games.

<sup>50</sup> Barnett, "The Moral Choice of Infamous."

<sup>51</sup> The experiential operator "is the emergent narrative that develops out of the inherent 'conflict' of the game as it is played out, as experienced by the players themselves." Pearce, "Towards a Game Theory of Game."

<sup>52</sup> The augmentary operator is the "layers of information, interpretation, backstory, and contextual frameworks around the game that enhance other narrative operators." Pearce, "Towards a Game Theory of Game."

<sup>53</sup> The metastory operator is the "specific narrative 'overlay' that creates a context or framework for the game conflict." Pearce, "Towards a Game Theory of Game."

<sup>54</sup> Sicart, *The Ethics of Computer Games*, 2–3.

<sup>55</sup> See, generally, Newbery-Jones, "Answering the Call of Duty" and the games cited therein.

<sup>56</sup> See, generally, Smethurst, "Playing with Trauma."

<sup>57</sup> Zagal, "Ethically Notable Videogames," 8.

<sup>58</sup> An important example of how science fiction has influenced society and shaped cultural opinion can be observed in the depiction of Nyota Uhura in *Star Trek*. Uhura's role as the communications officer and translator on the bridge of the USS Enterprise portrayed an African American woman in a position of authority. This demonstrated to America (and the world) the potential for racial harmony, particularly during the period of racial ferment in the 1960s. It highlighted the importance of equality for harmonious interpersonal relations and provided an important ideal for post-civil rights America. Nichelle Nichols, who played Uhura, was a friend of Martin Luther King Jr, and she acted as an important symbol for African American women during the civil rights movement, a time when women of colour were mostly absent from television. Martin Luther King Jr convinced her to remain in her role when she considered leaving *Star Trek* to move to Broadway, saying "You cannot do that ... For the first time, we are being seen the world over as we should be seen, as equals, as intelligent people – as we *should* be. There will always be role models for black children; you are a role model for everyone." See Nichols, *Beyond Uhura*, 164. Whoopi Goldberg (another *Star Trek* franchise alumna) has described Uhura (and Nichols) as her role model, stating that witnessing an African American woman depicted in a position of authority had a transformative effect on her. See BBC, "BBC Cult: Nichelle Nichols".



culture holds over reflecting and leading opinion, science fiction has a meaningful and unique place in our cultural landscape.<sup>59</sup> With the advancement of technology, the ability of scholars and the public to experiment with pertinent, personal narratives and themes in digital sources allows individuals to develop their own understandings of such themes and investigate narrative development. This experiential engagement with such themes deepens the educative function of science fiction texts and allows experimentation alongside reflection. This paper will now argue the importance of science fiction texts as a source for further exploitation in education, both formal legal education and public legal education.

### *Science Fiction as Legal Education*

It is advocated here that science fiction has an important place in contemporary legal education. The work cited earlier by Campbell and Eliason<sup>60</sup> has shown how science fiction can be used as a pedagogic tool for prompting discussion, engagement and reflection on social justice issues. It has also been argued how video games (often with science fiction or futurist themes) can be used to engage law students in ethical themes and reflect on jurisprudential concepts.<sup>61</sup> There are noticeable pieces of science fiction that have been used to interrogate legal problems<sup>62</sup>, or science fiction has been used to consider the future of legal studies.<sup>63</sup>

The ability of science fiction texts to consider law's future is crucial for the training of lawyers in the twenty-first century.<sup>64</sup> Until recently, legal education has traditionally been organised around learning rules, systems and regulations, alongside applying those rules to legal problems. Historically, legal education (particularly in England and Wales) has given only limited consideration to broader engagement with socio-legal, ethical and theoretical understandings of law. That is not to say that the theoretical underpinnings of law have not been a part of law schools throughout the development of university legal education in England and Wales; rather, it has never been a cornerstone of the legal curriculum. Neither has legal education adequately positioned law in dialogues around addressing broader societal issues, inequality and global challenges. Law's narrow focus is considered by H. G. Wells's in his 1902 lecture on *The Discovery of the Future*, in which he said:

The former type one might speak of as the legal or submissive type of mind, because the business, the practice, and the training of a lawyer dispose him toward it; he of all men must constantly refer to the law made, the right established, the precedent set, and consistently ignore or condemn the thing that is only seeking to establish itself. The latter type of mind I might for contrast call the legislative, creative, organizing or masterful type, because it is perpetually attacking and altering the established order of things, perpetually falling away from respect for what the past has given us.<sup>65</sup>

Legal education has not advanced much since the turn of the twentieth century. It is rather apt that H. G. Wells, the father of science fiction, recognised this difference in thought between lawyers who look to the established, the precedent set, and those creative types who look to attack and change the established order. It is science fiction that can be used as a source to facilitate a shift in thinking among law students, assisting them in conceptualising abstract themes and challenging established narratives. Adébsí argued for such a shift in her work on decolonising the curriculum. Changing the process by which we educate and facilitate reflection on the world as it is and as it could be can:

enable us to build on and implement our dreams of a better and fairer world. For our dreams for the world are currently too small, our visions currently too limited, our structures unwise, unsustainable and unsafe. We must let our dreams and visions do more than continually reproduce an uneven world – a world where the lots of those who must die so that others may live have always been unfairly cast.<sup>66</sup>

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Further, Dr Mae Jemison, the first black woman to fly on a space shuttle, has talked about the influence Uhura and *Star Trek* had on her decision to join NASA. See Jackson, "The Legacy of Lt. Uhura: Astronaut Mae Jemison on Race in Space".

<sup>59</sup> Travis has argued how science fiction must have had an influence in the prohibition of the creation of hybrid embryos in the *Human Fertilisation and Embryology Act 1990* (United Kingdom) and the changes made to the Act in 2008 based on the dearth of scientific research into hybrid embryos. See Travis, "Making Space," 249. Travis has also discussed how judges engage in judicial speculation by drawing on tropes and themes found in science fiction, including the creation and manufacture of artificial life, torture carried out by a non-human machine and the porous boundary between life and death. See Travis, "Making Space," 248. Tranter's work on technical legality also provides numerous illustrations of the influence of science fiction in legal change. See Tranter, *Living in Technical Legality*.

<sup>60</sup> Campbell, "Teaching Law."

<sup>61</sup> Newbery-Jones, "Ethical Experiments with the D-pad."

<sup>62</sup> Fuller, "The Case of the Speluncean Explorers."

<sup>63</sup> Maharg, *Transforming Legal Education*.

<sup>64</sup> 'Lawyers' is broadly defined here as anyone with legal training, not just practising lawyers. Due to the varied graduate destinations of law students across international legal education, the development of conceptions of such jurisprudential concepts is important.

<sup>65</sup> Wells, *The Discovery of the Future*. 2.

<sup>66</sup> Adébsí, "Decolonising the Law School." 474.

Science fiction can open a space for us to do this. For example, the presence of extra-terrestrial aliens in a legal context potentially forces science fiction to consider humans as a unified group rather than nationally or racially but can also throw into stark relief the appalling and unequal treatment of marginalised groups in contemporary society. Tropes such as the othering of alien races challenge our existing conceptions of society and expose the uneven world. However, utopian tropes representing all humans as a unified group can demonstrate a total structural and systems shift, something that is very often constrained in traditional educative approaches.

Moreover, science fiction can be an important site for such reflection and experimentation, particularly when looking forward. While law schools are becoming better at addressing social issues and global challenges, for many students, these (and other) jurisprudential concepts can remain abstract and unrelatable. Works of science fiction can make our vision unlimited and our world(s) infinite while also providing a sandbox for engagement with imagined problems that resonate or contradict contemporary society. These can also allow students to consider solutions in ways unfettered by current constraints. Science fiction can also encourage students to interrogate their own understandings of jurisprudential concepts.

Science fiction belongs on the legal syllabus, even as a point of contrast to contemporary non-fiction texts. To cite Campbell and Eliason in relation to addressing race and ethnicity, giving students ‘speculative fiction and an introduction to critical race theory as a framework helped us analyze our own experiences and begin thinking that other worlds, other social relationships, other campuses, might be possible’.<sup>67</sup> A greater engagement with cultural texts, particularly science fiction, can provide a safe space for students to engage with imagined solutions to contemporary problems and consider law’s place in achieving the ‘brotherhood of intelligence’<sup>68</sup> that Asimov predicted.

However, science fiction is not just a source for education in a formal, structured context but also acts as an educative tool for the public more generally. This work will now argue that science fiction texts from across the cultural landscape perform an educative function for the public, encouraging reflection and experimenting with abstract legal and legally related concepts.

### *Science Fiction as Public Legal Education*

Moving beyond the context of structured legal education, this essay argues that science fiction educates all consumers in legally related subject matter, particularly jurisprudential concepts and social challenges, while also allowing space to conceptualise abstract ideas. The centrality of science fiction stories to our popular culture demonstrates their enduring popularity and the public’s appetite for such imagined futures.

As discussed earlier in this work, themes such as shifting social conditions, technological advances and reconceptualised political and legal institutions permeate through science fiction texts. Legally related themes considering the consequences of our action or inaction on the social, environmental, political or legal challenges of today are recurrent. From Judge Dredd and the origins of the Justice Department<sup>69</sup> and Daredevil<sup>70</sup> to Rick Deckard<sup>71</sup> and Officer K<sup>72</sup> in the Blade Runner films, law and the legal process are reimagined and critiqued with a contemporary reflection. Texts such as *Children of Men*,<sup>73</sup> *The Handmaid’s Tale*,<sup>74</sup> and *Papers Please!*<sup>75</sup> deal with legally related issues that cover themes of inequality and xenophobia, gendered reproductive rights and immigration policy. Even as a snapshot, these sources present the diversity of legal themes and issues presented to consumers of cultural texts and demonstrate how science fiction presents meaningful messages to consumers.

If we take *Judge Dredd: Origins*<sup>76</sup> as an example, beyond the obvious messages of totalitarian, imminent and retributive justice in the absence of recognisable due process, the work is laced with broader themes that relate to corruption and institutional hypocrisy, (re)defining the rule of law, the ethics of genetic engineering, terrorism and global social challenges. These themes are not just pertinent to the narrative but also reflect the society at the time of its production, mirroring the challenges faced in contemporary society. It is these layers of legal and jurisprudential themes that encourage the public to reflect on their understanding of such themes and challenge their perceptions of such themes in contemporary society. The public can form an

<sup>67</sup> Campbell, “Teaching Law.” 166.

<sup>68</sup> See the explanation of the gendered nature of this term in footnote 2.

<sup>69</sup> Wagner, *Judge Dredd: Origins*

<sup>70</sup> Various, *Daredevil*, Netflix and Marvel, *Daredevil*.

<sup>71</sup> Scott, *Blade Runner*.

<sup>72</sup> Villeneuve, *Blade Runner* 2049.

<sup>73</sup> Cuarón, *Children of Men* and earlier, James, *Children of Men*.

<sup>74</sup> Atwood, *The Handmaid’s Tale*.

<sup>75</sup> Pope, *Papers, Please!*

<sup>76</sup> Wagner, *Judge Dredd: Origins*.

understanding of such concepts within their own lived experience and construct their own understanding in the light of the sources they have engaged with.<sup>77</sup>

Texts that elicit more conceptual or phenomenological experimentation with legal and jurisprudential themes allow the public to experiment and reflect on specific understandings and decisions made during engagement with the text. If we take video games as an example, much of the Call of Duty franchise focuses on the future of warfare in a near future setting with a variety of new technologies. Although these games may not seem like a legal source, they are often centred on conceptions of justice, with a particular focus on retribution. In *Call of Duty: Black Ops II*,<sup>78</sup> the emergent narrative is based on retributive conceptions of justice, going as far as to give control to the player to make the final decision about whether the antagonist is brought to justice. The villain of the text, Raul Menendez, is devoted to bringing about the fall of American neo-imperialism through terror. The player takes control of two soldiers sent to apprehend Raul in a historical and science fiction setting. The player's actions affect the outcome at certain stages of the game, and these affect the eventual ending. Depending on these decisions, different characters are killed or survive, leading to a range of distinctive outcomes or endings. These endings prompt individual players to consider the consequences of their actions, allow for experimentation in defining conceptions of justice and allow the individual to conceptualise justice themes in an imagined but relatable context.

This is most salient in the final act of the game. The player is given the opportunity to decide whether Raul is apprehended or killed. Experiential opportunities allow the consumer to conceptualise abstract concepts such as justice and bear witness to the consequences of their decisions, which play out in front of them. The player can adhere to ideologies of the judicial process through Raul's apprehension and trial, or the player can exact instant, retributive justice by shooting him. Both decisions lead to different outcomes, and by experimenting, the player can gain a greater appreciation of these conceptions. The ability to consider due process alongside instant justice allows the player to conceptualise their own theory of justice.<sup>79</sup>

The importance of science fiction texts that engage with such legal and legally related themes is that they democratise legal knowledge and assist in constructing a popular (legal) culture. While this is true for all cultural texts that represent such legal themes, it is more pertinent in science fiction due to the breadth of legal and legally related themes that emerge from these imagined futures. These sources can inform the public about aspects of legal culture that are unknown or barely known to them and assist in developing further conceptions of jurisprudential themes. The influence of cultural texts and the subject matter dictated by science fiction as a genre mean that science fiction texts are an important source of public legal education.

## Concluding Remarks

This article has made several contributions to the lacuna in contemporary scholarship regarding the educative function of science fiction, particularly in legal education, by exploring the relationship between science fiction and (legal) pedagogy. First, this paper has argued that science fiction performs an educative function, engaging the public with themes, ideas and concepts that present contemporary challenges and future consequences. Second, this paper has posited that themes of inequality, injustice and broader socio-legal concepts run deep through science fiction, and these popular texts provide a space for reflection and conceptualisation of such themes in contemporary society. This article has also contributed to the existing scholarship that centres on the jurisprudence of popular culture by arguing that popular texts (especially science fiction) play an important role in forming (popular) legal culture and, consequently, act as a means of public legal education. Science fiction texts should be considered such because they engage the public in important legal and legally related themes. Finally, the role of science fiction in legal education and in its function as a source of public legal education should not be overlooked. The ability to interrogate infinite worlds and imagined futures can encourage those who engage with science fiction texts to reflect in a more meaningful way on the role of law in the present for the benefit of the future. To return once more to Asimov, to create a Brotherhood of Intelligence, perhaps we should start with a Humanity of Legal Intelligence and position law at the centre of the solutions currently facing our society and our planet.

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<sup>77</sup> There are pertinent examples of how pop culture imagery has woven its way into public understanding and become a symbol of protest in contemporary society, for example, the adoption of handmaid cosplay at pro-abortion rallies to provide comment on the state control of the body.

<sup>78</sup> Anthony, *Call of Duty: Black Ops II*.

<sup>79</sup> See also Newbery-Jones, "Answering the Call of Duty," 94–95.

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