

THE TIME-TRAVELING LAWYER: USING TIME TRAVEL STORIES AND SCIENCE FICTION IN LEGAL EDUCATION

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ABSTRACT

Science fiction and time travel can be used to inform and enhance the education of law students in profound ways. Within the broader field of law and literature, the relationship between law and science fiction, especially time travel stories, is rich and useful. Themes and concepts in time travel can be applied in the exploration of existing legal philosophies as well as a more expansive and engaging study of power, authority, freedom, and a number of global issues. As governments and people worldwide wrestle with climate change, armed conflict, pandemics, and the increasing significance of artificial intelligence and other advances in technology, time travel stories give students unique contexts in which to consider what law is and the degree to which it defines human experience. For generations, brilliant science fiction writers have offered thought-provoking stories and worlds that law professors and their students can use to reimagine legal thought and practice. Like its close relatives, mythology and fantasy, the science fiction genre is untethered to current social or political experience or projections necessarily corrupted by narrowly conceived historical perspectives. Science fiction writers are interested in illuminating possibilities by considering identifiable problems in unidentifiable environments. It is no accident that gender identity, racism, reproductive rights, extremist ideologies, global health crises, and various recognizable forms of labor exploitation are addressed in provocative and insightful ways by a number of the best science fiction writers. Law has a strong presence in their work. Judges, law givers, ruling groups, and other less familiar forms of power and control appear in these stories and help to move and shape the experience of the time traveler. Law students can draw on the work of these writers to consider old questions in new and refreshingly broad ways. The importance of communication and access to information are also strong themes common to law and science fiction. How are concepts of truth and propaganda significant to power? Is truth necessary for legitimacy? Information technologies introduced in the science fiction world now exist in real time in forms and with speed and volume unimagined even a few decades ago. As artificial intelligence becomes dominant in many aspects of our daily lives, law students must consider how it may change law making, court procedures, entire legal systems, and perhaps even concepts of justice. As a project, law students might develop a case and conduct a trial using an AI judge or try a case to an AI jury. How human is the law? The role of emotional intelligence and concepts like mercy, restorative justice, forgiveness, or retribution are also things they might explore in seminars or other classes using science fiction literature and other time travel media as a framework.

KEYWORDS

Law and Literature, Law and Science Fiction, Law and Time Travel, Artificial Intelligence, Emotional Intelligence and the Law

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I. INTRODUCTION

*The Roman God Janus famously has two faces. One looks backward, toward the past; the other looks forward, toward the future. Mythologists understand this two-faced depiction as complementary, not contradictory. It means that every beginning has an ending, every ending a beginning. Like a doorway, Janus looks both ways.*¹

This is an article about the potential value of time travel and science fiction stories and concepts in legal education. Opportunities to use this imaginative and thought-provoking material in legal education, including doctrinal teaching and skill development, should be embraced and celebrated. Law professors are often seeking new ways to capture the interest and natural curiosity of their students and engage them in an educational experience as memorable as it is meaningful. In this context, “meaningful” is something beyond proficiency or competency in areas necessary to obtain the degree of juris doctorate, or the successful mastery of bar examination material. Time travel and other science fiction works are uniquely suited for use in law school. Science fiction writers explore the nature of law and authority in their work. They pull power, prejudice, and notions of what it means to be human out of the recognizable contexts of history and culture, allowing readers and viewers new ways of challenging underlying assumptions. Law and literature are already wrapped together in the world of ideas and philosophy, and useful approaches to their relationship have been put forth by legal scholars in earlier eras. In an age of interactive artificial intelligence, privatized space exploration, global pandemics, and rapidly evolving threats to both the integrity of public information and the planet’s atmosphere, this relationship can be retooled and suited to strengthen legal education in remarkable ways.

This article begins with reflections on the emerging legal market and the challenges facing law graduates as they enter it—challenges driven not only by changing needs and demands of the profession, but a broader, aspirational challenge to establish a relevant and satisfying presence in that world. Following afterward, themes and ideas in science fiction and time travel literature are introduced and observed with a focus on the way law, authority, and social structure are used. The work of select scholars with important ideas in the field of law and literature is explored in the context of bringing these ideas forward. What are the possibilities for using science fiction and time travel literature in legal education and thought? The works of several science fiction writers with law-related themes are explored for their potential value, and as a means of re-imagining the legal landscape. Evolving technologies, especially artificial intelligence, are considered with respect for their great potential. This potential is tempered by caution, as those concerned with social justice, global health issues, climate change, and extremist politics observe the increasing presence of AI in every aspect of life. In conclusion, ideas about how science fiction and time travel literature might be incorporated into the law school curriculum are discussed.

¹ Elec. Priv. Info. Ctr. v. Nat’l Sec. Comm’n on A.I., 466 F. Supp. 3d 100 (D.D.C. 2020). Judge McFadden references DONALD. L. WASSON, *Janus*, ANCIENT HIST. ENCYCLOPEDIA (Feb. 6, 2015), <https://www.Ancient.eu/Janus/>.

II. LAW GRADUATES AND THEIR NEW PATHS IN EVOLVING CULTURE

As this decade begins, law graduates are finding an evolving job market. They are looking for more and different ways to use their education. Though drawn to law school for any number of reasons, millennials take it for granted that the traditional competitive model for career paths and the results it produces are self-limiting. They do not want to be boxed in. As Robert N. Saylor and Molly Bishop Shadel note: “They are frightened about graduating with huge loans and no job in hand. But they are also disconcerted and depressed that the world does not invariably reward even the most dedicated.”² Seeking roles in a “larger, noble goal”³, these students have expanded expectations. They are restless, and they will likely redefine law practice to include broader and more sophisticated connections with the fields of technology, artificial intelligence, environmental science, and global health. They will also bring their “useful energy and focus”⁴ to the forefront in social justice and human rights.

Science fiction can be used to refresh and re-energize the law school experience. The *what* and the *why* of curriculum needs shift and change. As they absorb what they are taught, students are also engaged at some level in deciding why it is important. Literature and other popular media can bring dimension to the classroom that is not possible with cases and textbooks alone. An example is climate-change fiction, or “cli-fi”, a term coined by author Dan Bloom.⁵ Students work harder when they can attach personal and social significance to their course material or assigned areas of study. “In a society where climate change effects marginalized groups disproportionately, imagining the future through climate change fiction becomes an act of resistance.”⁶ Science fiction is an ideal medium for writers who measure the distance between past, present, and future in unique units of science, culture, and human endeavor. Looking forward, they offer both utopian and dystopian views of the future. Traveling backwards, they explore history and culture through the meeting of different worlds, even if the present is only represented by a single human. Some provide elaborate detail, and others allow the reader to supply or avoid missing pieces of the stories in a way unique to time travel and science fiction literature. Whether it is the “angry optimism” of Kim Stanley Robinson,⁷ the unparalleled psychological masterpieces of Octavia Butler,⁸ or the spirited stories of Becky Chambers,⁹ the goal is to inspire students and their professors to think in new ways.

² ROBERT N. SAYLOR & MOLLY B. SHADEL, TONGUE-TIED AMERICA 137 (2011).

³ *Id.*

⁴ *Id.* at 136.

⁵ Dan Bloom, *Can “Cli-fi” Help Keep Our Planet Livable?* THE MEDIUM (July 27, 2015), [HTTP://MEDIUM.COM/@CLIFICENTRAL/CAN-CLI-FI-HELP-KEEP-OUR-PLANET-LIVABLE-8B053BD4AA35](http://medium.com/@CLIFICENTRAL/CAN-CLI-FI-HELP-KEEP-OUR-PLANET-LIVABLE-8B053BD4AA35).

⁶ Diego A. Ortiz, *How Science Fiction Helps Readers Understand Climate Change*, THE BBC (JULY 6, 2019), <https://www.bbc.com/culture/article/20190110-how-science-fiction-helps-readers-understand-climate-change>.

⁷ *Id.* See generally KIM S. ROBINSON, 2312 (2012); KIM S. ROBINSON, THE MARS TRILOGY (RED MARS, BLUE MARS, GREEN MARS) (1993).

⁸ See OCTAVIA E. BUTLER, THE PARABLE OF THE SOWER (1993).

⁹ See BECKY CHAMBERS, THE LONG WAY TO A SMALL, ANGRY PLANET (2019).

Can there ever be too many ways to think about law? Professor Milner S. Ball explored the possibilities of new and more humanistic conceptual metaphors for law in his 1985 book, *Lying Down Together: Law, Metaphor, and Theology*.¹⁰ In a rich and far-reaching exploration of the conceptual metaphors of law, Ball identified the primary metaphor of law as a “bulwark of freedom” and considered the benefits and overall good of moving to a metaphor of law as “a medium of human solidarity” instead.¹¹ Ball used marine law to illustrate his points. However, his unique interdisciplinary treatment of the subject inspires us to see law in many places and many forms. The body of his work also reflects his passion for social justice and civil rights.¹² In the 1980s, Ball’s choice of “medium” over “bulwark”, and “the Peaceable Kingdom” over “Fortress America”, was a kind-spirited challenge to rethink law into an uber-intelligent, inclusive, and accepting process.¹³ Sealed in the image of a bulwark or fortress, law is inherently suited for the preservation of special interests, privilege, rigidity, and exclusivity. Lawyers and lawmakers of a newer generation naturally struggle to define their world with a new language. It is a world splintered with “isms”, brands, and hashtags, yet obsessed with the ancient pilgrimages that move toward either unity or division, whether on climate change, voting rights, or the permissible limits of government. The metaphors of the cyber age sound and feel different from those of the 1980s. They inhabit the world of millennial lawyers, bringing faster, less predictable paradigms into play as earlier ways of thinking about law and professional identity fade or become ambiguous. Professor Ball recognized the power of metaphor in law when he said, “Conceptual metaphors for law can circulate, diversify, increase, stimulate the creating of other metaphors, and challenge the hegemony of monolithic conceptual thinking. If we can get the hang of it, law itself can be made a helping part of the cycle—keeping a gift moving, keeping a conversation going, establishing connections, breaking through walls.”¹⁴

The idea of traveling backwards in time, or forward at an accelerated pace, landing on fixed or random points, experiencing environment, communication, relationships, and industry in an unfamiliar temporal world, has long fascinated. For law students, provocative questions are raised through these encounters. What better test for principles driving rules and authority? In imaginative contexts, students are free to explore the fragility or flexibility of contemporary concepts of law and justice. What aspects of time travel and science fiction literature might help elucidate practice values? If we ask students to identify and study recognizable assumptions in unrecognizable and almost unfathomable systems, we may equip them to be better problem solvers and better builders of the next legal world—smarter, braver, and more resourceful.

The bond between popular culture and law is a subject of spirited debate and discourse. As virtual realities, a whole menu of universes with new worlds, alien cultures, and undreamed of and liberating technologies, play out across jurisdictions,

¹⁰ MILNER S. BALL, *LYING DOWN TOGETHER: LAW, METAPHOR, AND THEOLOGY* (1985).

¹¹ *Id.* at 28-35.

¹² See *In Memory of Milner S. Ball*, U. OF GA. (n.d.) <https://www.law.uga.edu/memory-milner-s-ball>.

¹³ BALL, *supra* note 10, at 123. Understandably, Ball found the term “kingdom” to be imperfect. For reasons discussed in the text, he chose to keep it anyway.

¹⁴ Ball, *supra* note 10, at 17.

there are surely ways lawyers can project themselves toward a richer experience as the ones self-chosen to inhabit the legal world of the present.

Science fiction and law share themes and concepts. Sometimes easily recognized and other times obscure, these include power, legitimacy, conformity, isolation, communication, privacy, control, freedom, fear, stability, and self-determination. Psychological themes are also present. These include alienation, aggression, apathy, otherness, love, loyalty, mortality, mercy, empathy, aesthetics, and safety. Professors and other mentors can help define the role of law graduates in the next decades by referencing the broad range of ideas and imaginative thinking of science fiction writers. The language and metaphors of the genre are already in our shared experience and consciousness.¹⁵ A central question will be whether the legal community will be a positive, optimistic force for the future, or a dull and largely unresponsive mass, without momentum or vision.

In her January 2020 op ed, *The Darkness Where the Future Should Be*, New York Times Columnist Michelle Goldberg asked, “What happens to a society that loses its capacity for awe and wonder at things to come?”¹⁶ Borrowing Goldberg’s question for a narrower context, what happens to a legal system that loses *its* capacity for self-reflection, flexibility, and adaptation? As Goldberg suggests, awe and wonder are the necessary fuels to move forward with a healthy level of confidence in the possibilities for positive change. Goldberg noted an alarming downward spiral in well-being and outlook among millennials in the nation’s political climate.¹⁷ Law students are especially prone to this unsettling phenomenon. If they are truly engaged in their education, the ways that law creates, colors, and animates the world in their field of vision will be immeasurable. A worthy challenge for professors is to find ways of helping students see that world not only with clarity, but with empathy and compassion. The demands of the legal world are not always familiar or predictable. In periods of crisis, they must be broadly, rapidly, and honestly defined. Extraordinary skills and judgment are necessary in a world that assumes *unknowns*. The need for these strengths would be less critical in a world of certainty.

Law is unique in its relationship to society. In varying degrees, it affects everyone and everything. If we carry Professor Ball’s concept of law as a medium forward,¹⁸ it may help us understand why ancient themes of empathy, mercy, and forgiveness attach to newer and newer realities in law, however scientific or *novel* the terrain. In a democracy, the capacity for awe and wonder and the capacity for empathy are precious partners.

To prepare tomorrow’s lawyers as if they were time travelers, traditional notions of hindsight, foresight, and *insight* are helpful but ultimately inadequate. Time loops have replaced the notion that history repeats itself. Knowledge is an accepted source of power, but if knowledge alone does not lead to a successful break from inadequate and self-perpetuating institutions, a search for more radical ideas may yield a better energy field for the profession. Free to mingle ideas from

¹⁵ See PETER STOCKWELL, *THE POETICS OF SCIENCE FICTION* (2000).

¹⁶ Michelle Goldberg, *The Darkness Where the Future Should Be*, N. Y. TIMES (Jan. 24, 2020), <https://www.nytimes.com/2020/01/24/opinion/sunday/william-gibson-agency.html>

¹⁷ *Id.*

¹⁸ BALL, *supra* note 13.

their own experience with those from the assumption-free fiction of time travel, students might explore any number of questions. Will historically mistreated and oppressed people find themselves in a newer and even more sinister model of discrimination? Will our ability to communicate with one another evolve or devolve? Will the power of ideas thrive or diminish? Will the term “compromise” come to mean something different, darker, or aspirational? Will that term fall out of use altogether? Will there be a language of hope? As humans become more reliant on artificial intelligence, how will we define truth?

Science fiction offers students unique ways to consider law and its relevance in different contexts. Law is highly visible in some, and in others, it is hidden or notably absent. Law can be redefined or deconstructed. Students can question its nature. It can be branded, marketed, and reinvented. Its value can be questioned. Its relation to other forces in society can be scrutinized without the limitations of real-time culture. Is law porous enough to contain or absorb empathy? Can we conceive of law without human characteristics? Is law definable without notions of uniformity, conformity, or value judgments? How much of the legal world is defined by propaganda?

The language and ideas of science fiction are present in business, design, and the self-help industry. Notable pioneers in these fields have been influenced by both dystopian and utopian visions of the future. Elon Musk, founder and CEO of Space-X, product architect for Tesla, founder of research companies OpenAI and Neuralink, and co-founder of the company which ultimately became Paypal, is a striking example. Musk is a controversial twenty-first century engineering and technology visionary strongly influenced by science fiction writers like Isaac Asimov.¹⁹ Musk says, “an asteroid or a super volcano could destroy us, and we face risks the dinosaurs never saw: an engineered virus, inadvertent creation of a micro black hole, catastrophic global warming, or some as-yet unknown technology could spell the end of us.”²⁰ In brighter moments, Musk has also spoken hopefully of humans becoming an “interplanetary species” with the technology and resources to do somewhat better than the dinosaurs. “It’s insurance of life as we know it, and it makes the future far more inspiring if we are out there among the stars and you could move to another planet if you wanted to.”²¹

In a different vein, Deepak Chopra, popular speaker and author in the areas of personal growth and spiritual awareness, writes about becoming “metahuman”.²² It is significant that Dr. Chopra has chosen this term, which was coined in the DC Comics world to refer to individuals with superhuman powers, generally derived from genetic mutations.²³ Chopra has also been vocal about using Blockchain

¹⁹ Matt Weinberger & Avery Hartmans, *How billionaire Tesla & SpaceX CEO Elon Musk went from getting bullied as a child to becoming one of the most successful & controversial men in tech*, BUS. INSIDER (OCT. 21, 2021) <https://www.businessinsider.com/the-rise-of-elon-musk-2016-7>.

²⁰ *Elon Musk Quotes*, BRAINYQUOTE, <https://brainyquote.com/quotes/elon-musk-567310>, (n.d.).

²¹ Neil Strauss, *Elon Musk—the Architect of Tomorrow*, THE ROLLING STONE (NOV. 15, 2017), <https://www.therollingstone.com/culture-features/elon-musk-the-architect-of-tomorrow-120850/>.

²² DEEPAK CHOPRA, *METAHUMAN: UNLEASHING YOUR INFINITE POTENTIAL* (2019).

²³ *See, Metahumans*, FANDOM, <https://dc.fandom.com/wiki/metahumans>, (visited Aug. 10, 2020).

technology for suicide prevention during the crisis brought on by the coronavirus pandemic. He has referred to the platform as a “merger between technology and meditation.” “I am a big student of emergence, which means when you have a shared vision, when you value people’s differences, something happens when there is true transparency, everything is measurable. Blockchain moves us in that direction.”²⁴ Elsewhere, Yazin Akkawi has written about the influence of science fiction, and of sci-fi writers like Arthur C. Clarke, in the design world.²⁵ Given its influence in so many areas of popular culture, science fiction is a natural draw for easily bored law students as they search for ways to make their educational experience exciting and appealing.

In films such as *The Time Machine*,²⁶ an early drama based on H.G. Wells’ classic story,²⁷ and *Idiocracy*, a 2005 comedy,²⁸ time travelers encounter cultures populated with non-thinkers. In *Speech Sounds*,²⁹ one of many thought-provoking stories by Octavia Butler, readers encounter a society crippled by the loss of communicative abilities. These are examples of work that could be used to highlight essential practice skills in addition to stimulating ideas about the way information is generated, manipulated, stored, or restricted. Communication and understanding are often taken for granted in law. Their role is critical to the process of justice. The connection between communicative ability and mutuality or commonality of understanding is important for students to consider. How often do we question whether everyone is on the same page? Students should be encouraged to consider the relationship between communication, authority, and legitimacy. They should explore the extent to which a willingness to communicate and the desire to assist in understanding and exchanging ideas denote acceptance and inclusion. It is essential in the struggle to achieve equality. When are words being used to facilitate understanding, and when are they being used instead to frustrate and confuse?

There are nods to hard science and technology throughout much time travel literature, and there are also works of complete fantasy. Competing ideas about history are found in science fiction. One is that history is mutable. A second is that history is immutable. The third is a free-standing idea of “alternate history”³⁰ Each of these models has been used creatively to illustrate the ways humans cope with profound and novel dilemmas. Time-traveling characters experience moments of shocking realization and clarity in both personal and cultural dilemmas. They are tested and challenged in ways characters of traditional fiction are not. For the time traveler, paths of problem-solving must somehow shift into places and times that are unfamiliar and perhaps impossible to navigate.

In sci-fi stories and movies, characters sometimes find themselves in time loops,

²⁴ Jason Brett, *Deepak Chopra Leverages Blockchain to Fight Covid-19 Mental Health Crisis*, FORBES, (Aug. 20, 2020), <https://www.forbes.com/sites/jasonbrett/2020/08/20/deepak-chopra-leverages-blockchain-to-fight-covid-19-mental-health-crisis/?sh=36b6c91e42c9>.

²⁵ Yazin Akkawi, *The Role of Science Fiction in Design: should we be worried?* MEDIUM, (Mar. 14, 2018), <https://blog.prototypr.io/the-role-of-science-fiction-in-design-3777f13e66cd>.

²⁶ THE TIME MACHINE (Metro-Goldwyn-Mayer 1960).

²⁷ H.G. WELLS, THE TIME MACHINE (William Heinemann 1895).

²⁸ IDIOCRACY (20th Century Fox 2006).

²⁹ Octavia E. Butler, *Speech Sounds*, in ASIMOV’S SCIENCE FICTION MAGAZINE (1983).

³⁰ *Time Travel*, TIME TRAVEL SITE, (n.d.), <https://timetravelsite.wordpress.com/time-travel/>.

repeating minutes, hours, or days. Examples are popular films such as *Groundhog Day*³¹ and the futuristic action film *The Edge of Tomorrow*,³² also marketed as *Live, Die, Repeat*. In varying degrees, science fiction writers draw on theories from the academic and scientific communities. There are competing ideas about the nature of time. In the theory of *presentism*, time is essentially an illusion, viewed only as a change in events. In *eternalism*, past and future are conceived to exist.³³ Sci-fi writers flirt and experiment with the ideas of scientists and philosophers like Albert Einstein, father of the theory of relativity,³⁴ J.M.E. McTaggart, author of *The Unreality of Time*,³⁵ Lee Smolin, author of *Time Reborn*,³⁶ and Marina Cortez, co-author with Smolin of *The Universe as a Process of Unique Events*.³⁷ McTaggart subscribed to the theory of presentism. Smolin and Cortez are examples of scientists who reject presentism in favor of a dimensional concept of time. In *The Universe's Time Machine*, Trace Dominguez, host of the PBS Series *Stargazers*, notes that modern calculations place the speed of light at 186,000 miles per second. This means that stargazers are actually “seeing” distant stars and planetary systems as they existed at an earlier point in time, and not as they exist in the moment.³⁸

III. SCIENCE FICTION, POSSIBILITY, AND REALITY

Popular culture has been greatly enlarged with time-travel and science fiction, in all forms of media. Some is pulp quality, and some is masterful. Women and African American writers have belatedly achieved hard-won recognition in these fields. Their presence is extremely important in the genre. Ursula K. Le Guin, one of the first women to receive recognition as a writer of time travel and science fiction, rejected conventional definitions and limitations on concepts of gender, parenting, and family in her work, much of which is set in the fictional Hainish universe.³⁹ Other Hugo Award winners like the late Octavia Butler⁴⁰ and N.K. Jemisin have written unique and compelling stories. Jemisin's story, *The Obelisk Gate*,⁴¹ centers on the lives of a mother and daughter who have been separated by catastrophic climate change.

On the importance of science fiction in the battle against climate change, Diego Arguedo Ortiz writes, “for much of science fiction history white males have dominated the genre—with the figure of the male scientist or the white explorer

³¹ GROUNDHOG DAY (Colombia Pictures 1993).

³² EDGE OF TOMORROW (Warner Bros. 2014), also marketed as LIVE, DIE, REPEAT.

³³ TIME TRAVEL *supra*, note 30.

³⁴ See Ryan Jackson, *First Black Hole Image Puts Einstein's Famous Theory to the Test*, CNET, (Oct. 1, 2020), <https://www.cnet.com/news/first-black-hole-image-puts-einsteins-famous-theory-to-the-test/>.

³⁵ J.M.E. MCTAGGART, *The Unreality of Time*, in MIND 17, 457-473 (1908).

³⁶ LEE SMOLIN, TIME REBORN: FROM THE CRISIS IN PHYSICS TO THE FUTURE OF THE UNIVERSE (2013).

³⁷ Marina Cortez & Lee Smolin, *The Universe as a Process of Unique Events*, 90 PHYS. REV. D 084007 (2014).

³⁸ *Stargazers: The Universe's Time Machine* (PBS television broadcast Dec. 16, 2019).

³⁹ URSULA K. LE GUIN, THE LEFT HAND OF DARKNESS (1969).

⁴⁰ BUTLER, *supra* note 8.

⁴¹ N.K. JEMISIN, THE OBELISK GATE (2017).

commonplace—and the voices of women, indigenous groups, and people of color have been marginalized, even if they were also writing and publishing.”⁴² Ortiz is discussing the work of Shelley Streeby, Professor of literature and ethnic studies at UC San Diego. Streeby says, “Science fiction gets people thinking in a way that another report on climate change doesn’t.” She goes on to argue, “we need to consider the multiple versions of the future we get from different groups. If we let these stories proliferate and we hear them, they will give us a lot more possibilities than if there is only one.”⁴³

Octavia Butler’s time travel and science fiction stories are provocative and magnificent. Butler won multiple awards for her diverse body of work, which includes a time traveling woman’s experience of slavery in *Kindred*⁴⁴ and the exploration of a society recovering from a catastrophic pandemic that has impacted the ability to speak and communicate. In *Speech Sounds*,⁴⁵ Butler grasped the very roots of civilization and the attending truth about the critical value of communicative ability. Prophetically, Butler wrote of a pandemic that led to the breakdown of trust between individuals, and ultimately to a complete disintegration of government. Through the voices of her female characters, Butler addressed the nature of authority, domination, and betrayal, especially in the context of a male-dominated society. In *The Parable of the Sower*, Lauren, a woman with “hyperempathic” power, makes this observation about the God of the Old Testament:

“God says he made everything and he knows everything so no one has a right to question any of it. Okay. That works. That Old Testament God doesn’t violate the way things are now. But that God sounds a lot like Zeus—a super-powerful man playing with his toys the way my younger brothers play with toy soldiers. If they’re yours, you make the rules. Who cares what the toys think. Wipe out the toy’s family, then give it a brand new family.”⁴⁶

In Butler’s work, parallels to current events in all spheres of life, especially politics, governmental accountability, and the struggle to achieve racial and gender equality, are striking.

In time travel, as in other types of storytelling, there is drama, tragedy, comedy, suspense, romance, intrigue, and mystery. One peculiar hallmark of time travel is the tension between the world of the time traveler, represented by the experience, reactions, and choices of the traveler, and that of the past or future. Is there an understanding? If so, what is it? Will it change anything in the world of the traveler upon the return journey—if there is one? The traveler, whether detached or engaged, is in a discovery process readers and movie watchers adopt. In many instances, law and its core subjects are involved. In *Will There Be Justice? Science Fiction and the Law*, lawyer and science fiction author Christopher Brown writes, “Stories of science fictional law breaking have profound potential to highlight the

⁴² Ortiz, *supra* note 6.

⁴³ *Id.* See also Shelley Streeby, *Radical Reproduction: Octavia E. Butler’s HistoFuturist Archiving as Speculative Theory*, 47 WOMEN’S STUD. 719 (2018).

⁴⁴ OCTAVIA E. BUTLER, *KINDRED* (1979).

⁴⁵ BUTLER, *supra* note 29.

⁴⁶ BUTLER, *supra* note 8, at 16.

injustices we accept without question in real life—using the speculative prism to show truths about our world that realism cannot.”⁴⁷

Whether the tension is between present and past, present and future, or present and an alternate history, the traveler learns and reacts to things which can be made to look quite familiar, even if they cannot be known in real time. The ideas that set time travel apart from other literature necessarily flow from these unknowns—the writer’s projected vision of order, authority, life, and limitation. There are novel and sometimes futile, sometimes transformative relationships between the travelers and the time-distant environments of the stories.

IV. SCI-FI IN THE LENS OF LAW AND LITERATURE

As a branch of the field of law and literature, law and time travel are a natural pairing. The study of law and literature offers students ways to think about the professional identity of lawyers, values ascribed to law by members of society, the language and communicative properties of law, and its aesthetic properties. The same is true and perhaps amplified in time travel literature.

Ideas about law and literature have evolved over the last century, beginning with questions about whether a relationship exists and, if it does, what value it holds. The nature of the relationship has been discussed and debated with enthusiasm by numerous legal scholars, including Justice Benjamin Cardozo, Richard Posner, James Boyd White, Richard Weisberg, and Robin West.

Professor West has referred to three separate theories of law and literature, or “quite different interdisciplinary projects”, as “the literary, the jurisprudential, and the hermeneutic.” In the first, law as a subject in great works of literature is often insightfully treated. In the second, literature past, present, and future is viewed as having or capable of having the force of law. In the third, literature is viewed as a path to interpretation of legal texts.⁴⁸

With time travel literature, as with other genres, arguments can be made for the value of each of these theories. Given the variety of unique topics and perspectives among time travel writers, even within the discrete areas of science fiction and what might be called “dream” fiction, the election of one theory over others might pose unnecessary limitations. The need to use traditional models at all is questionable. However, they serve as a good starting point. It is worthwhile to observe that the relationship has been considered intently and expressed in rich and varied terms.

Justice Cardozo professed the view that the law *is* literature: “We are wasting our time, so many will inform us, if we bother about form when only substance is important. I suppose this might be true if anyone could tell us where substance ends and form begins.”⁴⁹ In his preface to *The Legal Imagination*, James Boyd White wrote, “I think that the law is not merely a system of rules (or rules and principles),

⁴⁷ Christopher Brown, *Will There Be Justice? Science Fiction and the Law*, TOR.COM, (June 3, 2020), <https://www.tor.com/2019/08/07/will-there-be-justice-science-fiction-and-the-law>.

⁴⁸ Robin West, *Literature, Culture, and Law — at Duke University*, 1 (Geo. Pub. L., Working Paper No. 1201867).

⁴⁹ Benjamin N. Cardozo, *Law and Literature*, in *SELECTED WORKS OF BENJAMIN NATHAN CARDOZO* 339-346 (Margaret E. Hall, ed., 1947).

or reducible to policy choices or class interests, but that it is rather what I call a language, by which I do not mean just a set of terms and locutions, but habits of mind and expectations—what might also be called a culture. It is an enormously rich and complex system of thought and expression, of social definitions and practices, which can be learned and mastered, modified or preserved, by the individual mind. The law makes a world.”⁵⁰ In *Poethics: And Other Strategies of Law and Literature*, Richard Weisberg wrote, “Wonderfully equipped for the task, literature teaches about law in two discreet if related ways, first, by the *how* of literature, or how literature means, to paraphrase John Ciardi—and second, by the *what* of literature—as the rationalized re-articulations of its ‘lessons’ for law.”⁵¹

In time travel literature, issues driving contemporary debate on social policy and legislation are pervasive. Consider the Victorian author, Charles Dickens. Ebenezer Scrooge was not a lawyer, but he *was* a time traveler. What might Scrooge’s transformative experience offer that cannot be found in Dickens’s famously cynical look at the law itself, *Bleak House*?⁵² In *A Christmas Carol*,⁵³ the ghosts of past, present, and future cast a brilliant and harsh light on issues of labor, employment, exploitative business practices, unrestrained capitalism, public health, and the overwhelming impact of poverty.

Dickens’s story is useful for legal education in other ways. Decades before the significance of early childhood development was fully recognized, he brought the reader along with Scrooge, his time traveler, to confront the painful and life-changing experiences of an emotionally isolated childhood. Unlike characters in conventional fiction, time travelers have the advantage of the moment, experiencing the past without the limitations of memory and the future outside the narrow space of their own imagination or need for wish fulfillment. In practice, lawyers can draw upon these concepts for “a day in the life” videos in personal injury cases or mitigation in capital murder cases.

Bringing ideas about law and literature forward from the very fruitful period of the 1980s, they can breathe new life into law curriculum of the twenty-first century. It is also possible to bypass this question—the precise nature of the relationship between law and literature—and view the intersect of law and the world of science fiction with an appropriately unique vision. Attempts to categorize it may diminish the opportunity to explore its characteristics with abandon. An atmosphere that is both self-aware and selfless surrounds the time traveler in these encounters. Whether the emphasis is on origins, environment, socio-political landscapes, artificial intelligence, or some extraordinary pairing of these, time travel informs the study of law in its own way.

Robin West has noted a more recent focus on law and culture as opposed to law and literature. She says this about the shift: “as our focus in humanistic studies of law shifts—and broadens—from literature to culture, we should be careful not to lose our attentiveness to the critical perspectives contained within imaginative literature and culture both, and no matter how each of those terms are defined”.⁵⁴

⁵⁰ JAMES BOYD WHITE, *THE LEGAL IMAGINATION* xiii (1973).

⁵¹ RICHARD H. WEISBERG, *POETHICS: AND OTHER STRATEGIES OF LAW AND LITERATURE* 4 (1992).

⁵² CHARLES DICKENS, *BLEAK HOUSE* (Penguin Books 1971)(1853).

⁵³ CHARLES DICKENS, *A CHRISTMAS CAROL* (Puffin Classics 2019) (1843).

⁵⁴ WEST, *supra* note 48, at 3.

The connections between law, literature and culture are arguably stronger and more complex as daily life activities move from brick and mortar buildings to virtual places. Readers may choose a virtual library, especially in periods of public health crisis. Art, music, literature, and forums for all kinds of communication have migrated increasingly into cyber theatres and galleries. Needs for any type of information or commodity can be gratified almost instantly. At the same time, the personal quality of information and forms of expression have undoubtedly been compromised. The inestimable amount of information crossing before us threatens to diminish the special character of literature, but it also makes it more accessible and more egalitarian.

If we think of ways law embraces the culture and spirit of time travel and science fiction, we naturally tend toward the positive. Positive concepts of transhumanism and the predominance of futurism in fantasy have pushed Orwellian dystopia to one side, although it is still useful to scrutinize that side. Professor Ball's search for conceptual metaphors inspires us to look beyond our world and our time for additional ways of understanding law. Drawing on his chosen metaphor, a medium, we might consider law's preservative properties. Conversely, mediums are reactive. They can stabilize or dissolve substance. They can be restorative, calming, or palliative.

When addressing doctrine, legal systems, judicial philosophy, or experiential law courses and skill development, time travel literature enlarges the discussion. Law figures prominently in science fiction and time travel. Time travelers encounter novel legal systems and thought-provoking dilemmas while recognizing or woefully failing to recognize a familiarity or affinity with things already known. *Star Trek's* "prime directive",⁵⁵ an order to respect autonomy and refrain from interfering in developing alien societies, played out for a generation of viewers who grew up with colonialism, imperialism, and unprecedented international aggression. Exposure to other worlds necessarily invites comparison and judgment, and hopefully leads to reflection. Arriving just two decades after a global war, the holocaust, and the end of British imperialism in India, *Star Trek* captured attention. It is one example of the powerful mixture of imagination and science pushing us to think about our world in new terms. As the universe grows larger and larger in our consciousness, and our world grows proportionately smaller and smaller, our assumptions about law are bound to be tested.

Other glimpses of law in science fiction are darker. In H.G. Wells' *The Island of Dr. Moreau*, the "Sayer of the Law" is one of the beast folk chosen by a sadistic doctor to indoctrinate the others with a set of rules that resemble religious law.⁵⁶ In the dystopic world of *The Handmaid's Tale*, Margaret Atwood's female characters have lost the rights to their reproductive functions as well as other basic rights.⁵⁷ Enduring questions of what it means to be a person, a human, or a group member are raised in these stories. More recently, the merciless and sometimes frustrating *being* of artificial intelligence has become a prominent feature in science fiction.

Throughout the genre, bits and pieces of legal history and almost-recognizable reality are found alongside startling new ideas and sketched-in technologies that transcend reason. Compelling themes in the journals of time travelers are often

⁵⁵ *Star Trek* (NBC television broadcast, Gene Roddenberry prod. 1966-1969).

⁵⁶ H.G. WELLS, *THE ISLAND OF DR. MOREAU* (1896).

⁵⁷ MARGARET ATWOOD, *THE HANDMAID'S TALE* (1985).

subjects at the heart of law and social controversy in *our* time—the relationship between humans and their environment, the tension between development and the destruction of precious resources, reproductive rights, bioethics, concepts of childhood and parenting, religion and spirituality, art and creativity, greed, prejudice, exploitation, privacy, and the corruption of moral codes by conquest.

Language is also a key part of the relationship of law and literature. This holds true for science fiction, and it is important for students to appreciate law's connection to language. Consciousness of language, along with its power and limitations, are companion subjects to law. These are celebrated in the work of James Boyd White. Professor White recognizes not only a comfortable dependence of law on literature, but a unique relationship between each lawyer and language. In *Success for the Lawyer and Writer: Establishing the Right Relationship with His Language*, he writes “it is fair to say that as lawyers we are not the products of a mass-production, assembly line education system, identical little lawyers lined up in a row. For some people, law leads to an ever duller and more restrictive life, to drudgery and routine; for others, to a life by comparison free and self-expressive, which seems to yield and form itself to the controlling intelligence or imagination.”⁵⁸

V. THE RICH WORLD OF SCI-FI WRITERS

Science is an obvious element that helps define this genre, although time-travel literature falls into distinct categories. One is heavy with science and technology. Writers in this category are often respected scientists or at least well-educated in science. For example, Arthur C. Clarke⁵⁹ and Isaac Asimov⁶⁰ are known for the scientific realism in their stories. The other category is a softer mixture of fantasy, historical fiction, and projections of the future. In the former, travelers arrive at various points behind and beyond by way of time machines or other fantastical crafts powered with future technologies. In the latter, a bump on the head, a dream state, or a spiritual presence transport the traveler to the past or future.

Several well-known time travel stories are of the type outside the science-based category. For example, Dickens's *A Christmas Carol*,⁶¹ Octavia Butler's *Kindred*,⁶² Henry James's *A Sense of the Past* (later adapted for film as *Berkley Square*),⁶³ and Mark Twain's *A Connecticut Yankee in King Arthur's Court*.⁶⁴

Most non-science time travel places the protagonist in an earlier era. The meeting of two—the traveler and the earlier environment—is the focus of the work, whether history is altered, or the traveler keeps any memory of the experience. Unlike other science fiction, these journeys and the messages readers discover in them do not depend on novel technologies or artificial intelligence. They provide

⁵⁸ WHITE, *supra* note 50, at 39.

⁵⁹ See ARTHUR C. CLARKE, 2001: A SPACE ODYSSEY (1968).

⁶⁰ See ISAAC ASIMOV, I, ROBOT (1950).

⁶¹ DICKENS, *supra* note 53.

⁶² BUTLER, *supra* note 48.

⁶³ HENRY JAMES, A SENSE OF THE PAST (1917); See also BERKELEY SQUARE (Fox Film Corporation 1933).

⁶⁴ MARK TWAIN, A CONNECTICUT YANKEE IN KING ARTHUR'S COURT (Charles L. Webster and Co., 1889).

an immediate perspective on the way laws, societal norms, and prejudices change and adapt along with things like fashion and taste.

Many time travel stories either deal directly with law or land on it indirectly, by focusing on legal issues. Some of these are H.G. Wells' *The Time Machine*,⁶⁵ Wilson Tucker's *The Lincoln Hunters*,⁶⁶ Eleazar Lipsky's *Snitkin's Law*,⁶⁷ Ray Bradbury's *A Sound of Thunder*,⁶⁸ Lloyd Biggle Jr.'s *Monument*,⁶⁹ Ursula K. Le Guin's *Another Story or a Fisherman of the Inland Sea*,⁷⁰ Harry Kuttner's *The Time Locker*,⁷¹ Poul Anderson's highly provocative *License* ("structured" crime is lawful),⁷² or Phillip Dick's profound and disturbing story about predictive prosecutions, *Minority Report*,⁷³ which was the basis for Steven Spielberg's 2002 film of the same name.⁷⁴

Time travel writers have the freedom and the challenges that come with addressing familiar issues in novel and unfamiliar contexts and settings. They use unique or ambiguous definitions for things readers recognize as racism, misogyny, slavery, genocide, oppression, ethnocentrism, and jingoism. Their work is rich with irony and suspense, but it moves beyond other forms of fiction with its ability to sidestep versions of reality understood and accomplished by humans thus far. It is not surprising that many writers of time travel and other science fiction were or are also lawyers. Examples are Eleazar Lipsky, Theodore Thomas, David Drake, Laura Montgomery, Charles Harness, and Christopher Brown.⁷⁵ Though not strictly time travel, other science fiction from the mid-20th century to the present dealing with law and lawyers includes *The Jigsaw Man* by Larry Niven (organ donation);⁷⁶ *CHECKSUM, Checkmate* by Tony Daniel (murder by an intelligent machine);⁷⁷ *License to Live*, by Sarah Hoyt and Laura Montgomery (space treaties and interplanetary settlement);⁷⁸ *The Cyber and Justice Holmes* by Frank Riley (artificial intelligence in the courtroom);⁷⁹ and *The People vs. Craig Morrison* by

⁶⁵ WELLS, *supra*, at note 25.

⁶⁶ WILSON TUCKER, *THE LINCOLN HUNTERS* (1958).

⁶⁷ Eleazar Lipsky, *Snitkin's Law*, in *FANTASY AND SCIENCE FICTION* (1959).

⁶⁸ Ray Bradbury, *A Sound of Thunder*, in *THE BEST TIME TRAVEL STORIES OF THE 20TH CENTURY 73* (Harry Turtledove and Martin H. Greenberg eds., 2005).

⁶⁹ LLOYD BIGGLE, JR., *MONUMENT* (1974).

⁷⁰ Ursula K. Le Guin, *Another Story or a Fisherman of the Inland Sea*, in *THE BEST TIME TRAVEL STORIES OF THE 20TH CENTURY 388* (Harry Turtledove & Martin H. Greenberg eds., 2005).

⁷¹ Harry Kuttner, *The Time Locker*, in *THE BEST TIME TRAVEL STORIES OF THE 20TH CENTURY 20* (Harry Turtledove & Martin H. Greenberg eds., 2005).

⁷² Paul Anderson, *License*, in *FANTASY AND SCIENCE FICTION* (1957).

⁷³ Phillip K. Dick, *Minority Report*, in *FANTASTIC UNIVERSE* (1956).

⁷⁴ *MINORITY REPORT* (20th Century Fox 2002).

⁷⁵ HANK DAVIS & CHRISTOPHER RUOCCHIO, *OVERRULED 3* (Hank Davis & Christopher Ruocchio eds., 2020). This is a collection of science fiction about law and lawyers. Many of the authors are also lawyers.

⁷⁶ Larry Niven, *The Jigsaw Man*, in *OVERRULED 81* (Hank Davis & et al. eds., 2020).

⁷⁷ Tony Daniel, *CHECKSUM, Checkmate*, in *OVERRULED 123* (Hank Davis & et al. eds., 2020).

⁷⁸ Sarah A. Hoyt & Laura Montgomery, *License to Live*, in *OVERRULED 189* (Hank Davis & et al. eds., 2020).

⁷⁹ Frank Riley, *The Cyber and Justice Holmes*, in *OVERRULED 323* (Hank Davis & et al. eds., 2020).

Alex Shvartsman and Alvaro Zinos-Amaro (individual liberties vs. self-driving automobiles).⁸⁰

Time travel and science fiction literature can be used in creative ways to help students develop skill in language, writing, problem solving, and persuasion. It can also be used topically. It is well-suited for courses addressing human rights, mental health law, ethics, legislation, law and technology, artificial intelligence, legal philosophy, and environmental law. What informs our assumptions about the legal world of the future? What role will lawyers play in the future? What will the impact of advancing technologies and artificial intelligence be? How do we envision the legal landscape? Are there enduring practice values in law? If so, what are they, and why are they enduring? Christopher Brown writes, “Science fictional extrapolation is such an ideal laboratory for imagining the policy changes incident to technological disruption that the tools of SF writers are increasingly being used by 21st century legal scholars as they wrestle with issues like what sort of tort liability should apply to autonomous vehicles, what legal rights or responsibilities an AI should have, how law can prevent the proliferation of killer robots (there is even a real-world NGO for that), and who owns the moon—and the minerals it contains.”⁸¹

Unique and favorable characteristics set time travel literature apart from other literature and distinguish it for purposes of enhancing legal education. However, shared characteristics should also be considered. Time travel stories contain elements of myth, poetry, and fantasy. One particularly rich example is Robert Silverberg’s *Sailing to Byzantium*.⁸² In Silverberg’s story, a “visitor” to the 50th century who conceives of himself as a 1980s New Yorker lands in a world where manual labor is performed by robots and service-oriented work is performed by non-human “temporaries”. As he travels among five cities that are continually changed by demolition and rebuilding, he experiences a society where choices have been reduced to the whims of tourism—which city to visit and what to see in the city. With a stunning realization that he may himself be a historical recreation just like the continually changing cities, he persuades his aging human companion to seek a transformation to his form so the two can remain together and experience love. Silverberg allows readers to contemplate a society without manual labor, and to question the nature of life forms, the possibilities of culture with mixed human and non-human intelligence or consciousness, and the nature of emotion. To what extent is the need for control dependent on the level of activity in a society? Does it subside as the expectations of humans subside?

Myth is a relative of time travel literature. The two share elements. In *The Clash of the Titans*,⁸³ based on the Greek myth of Perseus, themes common to time travel include the origin of the universe and the forces within it, achieving order out of chaos, the nature of parenthood, the bond between offspring and parents, and the cost of betrayal. In *The Power of Myth*,⁸⁴ Joseph Campbell noted:

⁸⁰ Alex Shvartsman & Alvaro Zinos-Amaro, *The People v. Craig Morrison*, in *OVERRULED 237* (Hank Davis & et al. eds., 2020).

⁸¹ BROWN, *supra* note 47.

⁸² Robert Silverberg, *Sailing to Byzantium*, in *THE BEST TIME TRAVEL STORIES OF THE 20TH CENTURY 252* (Harry Turtledove & Martin H. Greenberg eds., 2005).

⁸³ *THE CLASH OF THE TITANS* (Metro-Goldwyn-Mayer 1981).

⁸⁴ JOSEPH CAMPBELL, *THE POWER OF MYTH* (1988).

Mythology is not a lie, mythology is poetry, it is metaphorical. It has been well said that mythology is the penultimate truth—penultimate because the ultimate cannot be put into words. It is beyond words. Beyond that bounding rim of the Buddhist Wheel of Becoming. Mythology pitches that wheel beyond the rim, to what can be known but not told.⁸⁵

Paradoxically, mythology *is* told and written, just as time travel is told and written. In each case, a sense of what is beyond the knowns drives the story. Or, viewing time travel as the alter ego to mythology, the reader encounters what can be told but not actually known. Concepts of heroism, courage, loyalty, and the struggle to attain good over evil figure heavily in myth and fantasy. Consider Campbell's work, *The Hero with a Thousand Faces*,⁸⁶ and his discussion of "the master of two worlds."⁸⁷ This is also true in science fiction and time travel. The *Dr. Who* series, created by Sydney Newman, C.E. Webber, and Donald Wilson, is a good example. Since 1963, Dr. Who has been traveling through time and the universe, encountering and vanquishing evil in various forms, with varying degrees of success.⁸⁸ Some of Dr. Who's foes are in the form of unknown beings (Daleks), and some are in historically recognizable literary or biblical form, at least outwardly (humans, angels).⁸⁹

In trial, jurors search consciously and unconsciously for heroes. They identify heroes and anti-heroes in the courtroom. They respond to perceived acts of courage or heroism, and they respond to perceived acts of cowardice or evil. In opposite ways, these perceptions are strong motivators. Jurors and judges act on needs that appear in many forms in literature—needs for revenge, mercy, restorative justice, and safety. Safety is a powerful theme. It might be viewed as a defense to aggression or violence, or a condition of being protected. It is the absence of harm.

The relationship between truth and safety is explored in many ways in time travel and other science fiction. Assuming that truth is factual and that it is known, it is often critical to survival. Truth and safety can be viewed in different contexts—for example, one is the cliché that knowledge is power, and the more we know, the better we are at finding safety or remaining safe. Conversely, there is the idea that ignorance is bliss, that what we do not know cannot hurt us. Scientists seek truth. The need for objective truth, whether for survival or any number of lesser identified goals, is an underlying assumption of science. Accuracy and precision are highly valued. The need to be sure, with a related emphasis on testing, is a theme of science. Objectivity and the necessary independence to support it are fundamental. In recent years, the extraordinary politicization of science and the sponsorship of "alternative facts"⁹⁰ in the United States have highlighted these critical needs. Is truth optional? This is a broad theme in science fiction.

⁸⁵ *Id.*

⁸⁶ JOSEPH CAMPBELL, *THE HERO WITH A THOUSAND FACES* 229-237 (1949).

⁸⁷ *Id.*

⁸⁸ *Dr. Who* (BBC television broadcast 1963).

⁸⁹ <https://www.denofgeek.com/tv/doctor-whos-weeping-angels-are-perfecthorror-monsters-but-are-they-returning-villains/>

⁹⁰ Marilyn Wedge, *The Historical Origins of "Alternative Facts"*, *PSYCHOL. TODAY* (Sept. 27, 2020), <https://www.psychologytoday.com/us/blog/suffer-the-children/201701/the-historical-origin-alternative-facts>.

The search for truth figures heavily in science fiction. The consequences of ignoring scientific or historical truth, limiting access to it, or hiding it altogether, are rich subjects for literature. The stories of H.G. Wells⁹¹ and movies like *Twelve Monkeys*⁹² explore the consequences of suppression or manipulation of truth. The relationship of truth to stability or truth to power are common subthemes. In law, truth is an almost accidental theme, taken for granted with legal scholars and practitioners alike. The way in which truth is obscured, hidden, denied, accessed, or handled underlies protest movements and other forms of civil disobedience. Truth-related themes, whether implicit or explicit, are critical in the courtroom.

Another common thread in time travel and law is courage. Courage is a core value of advocacy—particularly the willingness to take on a controversial or unpopular cause or client. Greatness in law might be defined as the skill of persuasion when the outcome is uncertain, or the likelihood of succeeding is almost zero. Persuasive ability is important, and the art of persuasion is of great value. However, it is ultimately courage, which we might define as a willingness to engage in advocacy with an *unknown* end, that unites law and the best time travel writing. The courage to stand up to authority, *especially* when it appears to be futile, and the recognition of values as goals in themselves, are strong supporting themes.

As the special subjects of time travel—science, technology, and artificial intelligence—become increasingly significant in daily life, their impact on law will likely be profound. However, a subtler and more elusive concern is their impact on law's *themes*, especially those that rest on emotional and psychological well-being. Law students navigate through all sorts of subjects with these underlying themes. Whether fully articulated or not, themes of safety, privacy, self-determination, mercy, courage, and hope are present. Sometimes they are open and obvious, and in other cases they are hidden in the details.

Ironically, time travel stories address issues that are newsworthy and controversial in present or real time. Racism, gender identity, sexuality, the displacement of human industry with machines, biological engineering, climate change, and environmental catastrophe are strong themes in time travel stories and movies. One example is the 1973 novel by Ursula K. Le Guin, *The Left Hand of Darkness*. Le Guin's graceful and matter-of-fact science fiction addresses non-traditional gender roles and sexuality. She was writing at a time when women's issues and sexual identity were just rising in national consciousness.⁹³

VI. TECHNOLOGY AND ARTIFICIAL INTELLIGENCE

Technology and artificial intelligence are essential ingredients for resourceful science fiction writers. These subjects help foster an ideal interdisciplinary effort. In law, the importance of advances in technology and the increasing use of artificial intelligence are unquestionably high. Lawyers are expected to be educated and competent in technology as it relates to both practice and substance. Artificial intelligence has changed the landscape of practice in every area of law, and it will continue to do so as science progresses. Reflecting the significance of these areas,

⁹¹ WELLS, *supra* notes 27 & 56.

⁹² TWELVE MONKEYS (Universal Pictures 1996).

⁹³ LE GUIN, *supra* note 39.

the Science and Technology Section of the American Bar Association⁹⁴ has an interdisciplinary committee on artificial intelligence and robotics, and a committee on space law. In most states, technology is part of the law school curriculum and dedicated continuing legal education courses.

Children of the sixties and seventies onward can close their eyes and recall favorite episodes of Gene Roddenberry's *Star Trek*,⁹⁵ or the classic movie *2001: A Space Odyssey*,⁹⁶ based on Arthur C. Clarke's work. Features of science and technology creatively imagined in early time travel works and other science fiction now appear in various forms in the daily lives of people everywhere, whether scientists or school children. Examples of commonplace items that have ancestors in groundbreaking science fiction include personal computers, cell phones, interactive systems like *Siri*, *Cortana*, or Amazon's cloud-based voice service, *Alexa*, robots that perform everything from cleaning to complex medical procedures, 3-D printers, space rockets, space stations, space travel, sophisticated satellites, and the virtual workplace. The global positioning system (GPS) is now almost 50 years old. Facial matching software is now in use. Forensic scientists and criminologists are racing to keep up with advances in methods of DNA testing and analysis and advances in other areas of forensics.

Evolving technology is central to issues in criminal justice, privacy rights, and first amendment law.⁹⁷ It is startling and difficult to consider the magnitude of these changes. As a primary consideration, the gathering and preservation of information, whether historical or scientific, has changed dramatically. Information was once maintained as oral history or in a tangible, non-permanent form, something prone to rot and decay. It could be forgotten, hidden, lost, or destroyed. Information is now stored in increasingly sophisticated electronic formats. It floats in theoretical clouds and resides in millions of theoretical files in cyber libraries. Although not immune to damage or corruption, information now has staying power well beyond the oral history, hand-written words, and humbly type-set stories and reports of past decades. Information can now be copied and shared in tiny fractions of a second. It can be e-mailed, texted, posted on social media and other websites, and tweeted.

Understandably, cyber security has become a huge industry. Databases can be corrupted or breached. The operational systems of corporations and agencies can be held for ransom. Hackers and their "clients" have become the new international villains. Piracy, now a rare occurrence on the high seas, has become a serious threat in cyberspace. On *Pluralsight*, readers are advised to prepare for "the fourth industrial revolution" and given a glimpse of the anticipated technologies and skill set necessary for the next decade.⁹⁸

The broadening field of robotics also has its roots in science fiction. Scientist and author Isaac Asimov's three laws of robotics have the sound and feel of something profound—religious commandments, albeit without the forces of love, brotherhood, or sisterhood:

⁹⁴ SEE AMERICAN BAR ASSOCIATION, https://www.americanbar.org/groups/environment_energy_resources/ (last visited July 9, 2020).

⁹⁵ STAR TREK, *supra* note 55.

⁹⁶ CLARKE, *supra* note 59.

⁹⁷ See *Riley v. California*, 573 U.S. 373 (2014); *Carpenter v. U.S.*, 138 S. Ct. 2206 (2018).

⁹⁸ *Tech in 2025: 10 Technologies that will Transform the Global Economy*, PLURALSIGHT (n.d.), <https://learn.pluralsight.com/resource/offers/2019/tech-in-2025>.

First Law: A robot may not injure a human being or, through inaction, allow a human being to come to harm;
Second Law: A robot must obey the orders given it by human beings except where such orders would conflict with the First Law;
Third Law: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law. ⁹⁹

As humans share an increasing percentage of their lives with interactive machines and grow to depend on them for a variety of needs both personal and professional, Asimov's laws will likely evolve into something beyond fantasy. Humans are drawn to cyber intelligence and interactive machines like moths to a lamp. In addition to *2001: A Space Odyssey*, ¹⁰⁰sci fi films with central themes revolving around non-human intelligence include *AI*, ¹⁰¹*Her*,¹⁰² and *I, Robot*. ¹⁰³ There are many others. The subject enjoys a large, enthusiastic audience. Along with writers, lawyers and members of the scientific community are exploring the question of whether artificial intelligence has curiosity or personality. Are there broader ways of defining these terms? What are the limits of automated reasoning? What impact will AI have on essentially human problems like increasing feelings of isolation among members of large urban populations?

Author Stanislaw Lem created the fictional super-computer, *Golem XIV*, ¹⁰⁴a device created to assist the military in war, but ultimately capable of questioning the internal logic of that endeavor. In *Imaginary Magnitude*, Lem noted a single, remarkable characteristic his computer shares with humans: "curiosity—a cool, avid, intense, purely intellectual curiosity which nothing can restrain or destroy."¹⁰⁵

In the field of artificial intelligence, algorithms are changing the way problem solving is approached. In some cases, AI algorithms are even changing the problems. Jeremy Barnett, a UK barrister specializing in fraud, insolvency, regulatory law, professional responsibility, environmental law, and climate change, has referred to algorithms as artificial persons. "AI algorithms are different from ordinary software as they adapt, learn, and influence the environment without being explicitly programmed to do so."¹⁰⁶ Algorithms are being used in ways that are widely accepted and in ways that are controversial. In *Judicial Analytics and the Great Transformation of American Law*, Daniel Chen notes that judicial analytics can be useful in the identification of extra-legal factors in sentencing, ultimately leading to a "debiasing" in the law.¹⁰⁷ Can analytics be used to shame judges out of improperly grounded sentencing decisions? On the other end of the spectrum, where should the line be drawn in the use of artificial intelligence for legal decision-

⁹⁹ Isaac Asimov, *Runaround*, in *I, ROBOT* (Gnome 1950).

¹⁰⁰ CLARKE, *supra* note 59.

¹⁰¹ *A I* (Warner Bros., 2001).

¹⁰² *HER* (Warner Bros., 2013).

¹⁰³ *I, ROBOT* (20th Century Fox, 2004).

¹⁰⁴ STANISLAW LEM, *IMAGINARY MAGNITUDE* (Mariner Books 1985) (1973).

¹⁰⁵ *Id.* at 117.

¹⁰⁶ Jeremy Barnett et al, *Algorithms and the Law*, 52 *COMPUTER* 32 (2019); See also Jeremy Barnett et al, *Algorithms and the law*, *LEGALFUTURES* (Aug. 22, 2017), <https://www.legalfutures.co.uk/blog/algorithms-and-the-law>.

¹⁰⁷ Daniel L. Chen, *Judicial Analytics and the Great transformation of American Law*, 27 *ARTIFICIAL INTELLIGENCE & L.* 15 (2019)

making? AI Algorithms can be used to ferret out bias in bond proceedings and sentencing. However, algorithms may also contain bias.¹⁰⁸

There are open questions on the role of AI in judicial proceedings, especially in cases where a decision still depends on resolving credibility contests. Fact finders rely on different forms of information to determine truth-telling. Apart from advances in forensic science and technology, it is interesting to contemplate the future power of non-human intelligence in the justice system. In law, as in science fiction, there is a need to understand the value of emotional intelligence. How critical is emotional information in decision making? The relationship between emotional intelligence and fact-finding as well as fact-weighting is something good trial lawyers take for granted. It factors into determinations of credibility and bias, non-economic damages (pain and suffering), retribution, mercy, jury pardons, and other aspects of verdicts. On the extreme side, how would an intelligent machine handle reasonable doubt? Should intelligent machines have any decision-making role in capital murder cases? Looking at it from another angle, how much do we value the uniquely human connections between facts, emotions, and notions of justice?

Natural language processing (NLP) enables humans not only to interact with computers but to partner with them in oddly human ways. Decades after the arrival of Spellcheck,¹⁰⁹ computers have become de facto editors, translators, and co-writers. AI wordsmiths and translators have arrived. In 2019, the Supreme Court of India launched an app that translates judgments of the Supreme Court into nine different regional languages.¹¹⁰ The benefits of these relationships in a discipline heavily dependent on clarity and accuracy are great. Conversely, the law is rich with adjectives and other subjective terms. In the “definitions” section of statutes, adjectives are liberally employed to amplify statutory phrases. This is also the case with jury instructions. Consider the definition of “reasonable doubt” in Florida.¹¹¹ Among adjectives and other subjective terms in Florida’s instruction on the burden of proof are the terms “reasonable”, “abiding”, and “firm”.¹¹² In Florida’s standard instruction on weighing evidence, jurors are asked to consider whether a witness *seems* to have an *accurate* memory, and whether a witness was *honest* and *straightforward* when answering questions.¹¹³ There are analogous terms in civil cases. Jurors often depend on subjective definitions when determining awards for pain and suffering, loss of enjoyment of life, and any other non-economic injury provided for in law. In the scheme of things, it is questionable whether the purpose of these definitions is to identify a narrow or isolated meaning or instead to allow more. Judges and jurors are empowered by subjectivity in law, even as it may be difficult to reach a consensus in individual cases. Lawmakers use terms to narrow or broaden the reach of law for their own purposes.

¹⁰⁸ Jamie Condliffe, *Algorithmic Bias is Bad. Uncovering It is Good*, N.Y. TIMES (July 9, 2020), <https://www.nytimes.com/2019/11/15/technology/algorithmic-ai-bias-html>.

¹⁰⁹ BRAGS AND BLUNDERS OF LESTER DONALD EARNEST, <https://web.stanford.edu/~learnest/> (last visited Aug. 22, 2020).

¹¹⁰ Smiriti Srivastava, *Supreme Court to Use Artificial Intelligence for Better Judicial System*, ANALYTICS INSIGHT (Nov. 27, 2019), <https://www.analyticsinsight.net/supreme-court-use-artificial-intelligence-better-judicial-system>.

¹¹¹ 3.7 Fla. Sta. Jury Instr. (Crim) (1997).

¹¹² *Id.*

¹¹³ 3.9 Fla. Sta. Jury Instr. (Crim) (2013).

Regardless of their level of sophistication, machines are all about data. Data is now obtainable in smaller and smaller increments. Whether collecting it, analyzing it, or using it in decision-making, machines must have data. Humans have inspiration, fear, prejudice, anticipation, vulnerability, ego, wonder, awe, pride, boredom, and faith, secular or spiritual. Despite the need for objectivity and some degree of internal consistency, if we hold the belief that law is about well-being, emotional intelligence is essential in our legal system.

The idea that humans might hi-tech themselves out of existence is a theme with many variations in science fiction. A quirky example of this is Arthur C. Clarke's *Time's Arrow*.¹¹⁴ In Clarke's mid-century short story, paleontologists unearth familiar and unique tire impressions that demonstrate their ambitious military colleagues have been eaten by a dinosaur during a time travel experience.¹¹⁵ It is a fair expectation that today's law students will wrestle with the proper uses of artificial intelligence in all forms of dispute resolution and decision-making powers.

Supercomputers are the thing now highest on the wish list for competitive colleges and universities. College administrators, researchers, and those who support their programs will play a pioneering role in exploring the potential of these super machines.¹¹⁶ While the design, technology, and sophistication of supercomputers moves forward, there is an implicit assumption that humans are still the force behind the achievement. Whatever their personal motivations and goals, human beings are thus far responsible for pulling technology into bigger and ever more daring projects. As Peter Isakson opined on *Fair Observer*, "Artificial intelligence will never be as smart as Elon Musk."¹¹⁷

VII. SCI-FI AND TIME TRAVEL IN THE LAW SCHOOL CURRICULUM

Motivated teaching faculty can pull science fiction and time travel literature into their classrooms in varying degrees, using it anywhere from illustrative purposes only to core topic. Seminars and other classes can be structured in ways to include concepts and ideas from science fiction and time travel. Dedicated courses are also an option. A simple example would be a seminar on law in science fiction. For reasons discussed earlier, societies and cultures in science fiction offer a unique space for students to test their ideas and assumptions about law. Untethered from historical and ideological perspectives bound to attach in our own world, sci-fi places can be explored from a refreshing distance. Who (or what) are the law makers? Who is subject to their authority? What is the source of authority for law-making? Are the objectives driving law-making fully and truthfully articulated? How are laws enforced? Is there a process to test or challenge law? What are

¹¹⁴ Arthur C. Clarke, *Time's Arrow*, in THE BEST TIME TRAVEL OF THE 20TH CENTURY, 43 (Harry Turtledove & Martin H. Greenberg eds., 2005).

¹¹⁵ *Id.*

¹¹⁶ Betsy Foresman, *University of Florida builds supercomputer for AI research, education*, EDSCOOP (July 22, 2020), <https://edscoop.com/university-florida-supercomputer-ai/>.

¹¹⁷ Peter Isakson, *Artificial Intelligence Will Never be as Smart as Elon Musk*, FAIR OBSERVER, (Aug. 4, 2020), https://www.fairobserver.com/region/north_america/peter-isakson-elon-musk-will-ai-tech-news-tesla-space-x-founder-178671/.

the relationships between law-making, law, power, and other aspects of society like social and economic welfare? What is the language of the law, and how is it communicated to those who are its subject?

These relationships can also be explored in the context of race, gender, sexual orientation, spiritual or religious identification, or any factor that defines “other” or “different” in the culture. Students can consider whether a society is essentially static or changing, the pace of change, and the forces behind the change. They can engage in constructive criticism. They might also bring the community into the project, documenting and studying the ways members of diverse age groups, races, genders, and socio-economic groups relate or react to a sci-fi or time-travel story.

Realistic or “hard science” fiction would add an imaginative and useful dimension to courses addressing environmental law and climate change as well as those addressing AI, technology, and space law. Students could use sci-fi stories and movies to illustrate dramatic changes in applied science and technology, particularly those associated with privacy rights, advances in medicine and health care, and climate change. Using the culture or society in an assigned text or movie, students could draft legislation or work in group projects on public policy. Alternatively, they might focus on laws relating to a special topic like infectious disease.

VIII. GROUND ZERO

Law students can work individually or collectively to write science fiction or time travel stories with a variety of legal themes. They might focus on concepts of liberty, personal freedoms, and the nature of government. Alternatively, they might focus on natural resources or health care. Much thought should be devoted to the ways that technology and other environmental factors will alter human life as real time moves. For example, projecting the world a century or more beyond ours, students might build a penal code from the ground up. As part of the exercise, they might be limited to a certain number of laws or to a certain word limit in legal definitions. In a different project, they might imagine and populate a world where racial or ethnic differences can only be identified or observed by those who reach a certain age or elder status. In environmental law, they might draft a future global resource code, addressing water, air, agricultural needs, animal welfare, and other aspects of eco preservation.

Students can “travel” to planet earth centuries from now and draft lesson plans for a course on the 21st century American legal system. Conversely, they can travel back in time with the help of old legal codes and take on the task of identifying and rewriting or “repealing” laws that adversely impact groups, explicitly or implicitly, based on gender, race, or religion. As an evidence project, students might be asked to consider how principles of evidence will or should evolve. A model code might be drafted with attention to the impact of AI.

IX. ADVOCACY

As an advocacy project, students can prepare and present a trial as theoretical AI lawyers. This project would take a great deal of thought and planning, and it would engage students at many levels. Alternatively, students might present the case to an AI jury. They might reimagine and script a trial in a culture with limited language

ability. They might present a case to an AI judge. This would be a good project for collaboration with students from other colleges or departments. Civil cases with damages could be used as well as criminal cases. Students might be asked to draft jury instructions for an imagined jury of beings from another world—for example, they might consider jurors in a society with no word for “lie” or “falsehood”. Conversely, students could try cases in past decades, with well-known individuals from history—actors, politicians, writers, scientists, or artists—as clients or jurors. In a different project, students might time-travel to argue a case in front of a jury at a distinct point in history. This might be the height of the Vietnam War, the middle of the flu epidemic, during Reconstruction, in the South of the 1920’s, in the depression of the 1930’s, or during the Reagan era.

A common task in these varied assignments is to recognize and identify essential values and enduring objectives in law. In unique and unfamiliar temporal and cultural dimensions, students will be encouraged to seek these. Thought-provoking fiction has always had potential for broadening the learning experience in law school. As new forms of communication and life-altering technologies enter and impact our present experience, the work of those who have been out ahead and beyond real time will be a natural draw for students who want to make positive change.

X. CONCLUSION

Law students can benefit from considering the issues and concepts that give this literature its unique appeal. As they prepare to practice, students also prepare to give new shape and dimension to the legal market and the provision of legal services. The challenges they will confront as they move along various career paths call for receptive, creative, and resourceful thinking.

What are the differences, beneficial or otherwise, between human and non-human decision-making? How will law and public policy be transformed in a post-human world? With a focus on topics like the economy, health care, national security, and climate change, how would an AI “leader” shape up against a human? What role will AI play in lawmaking? Can we identify practice values that withstand the passage of time? If so, what are they, and why do they endure?

As clinicians and other teaching faculty consider micro-lawyering and the complex array of skills needed to provide effective legal services to individuals, it is important to factor in change. Practice methods change. Issues change. Client expectations change. The speed with which lawyers and judges managed to successfully transition to virtual practice and even virtual court proceedings during the coronavirus pandemic is an encouraging example. Today’s students are more likely to succeed if they leave law school with the sophistication to be adaptable, flexible, resourceful, and imaginative. One measure of outcomes in law teaching will be the degree to which the newest generations of lawyers are prepared to meet the unknowns.