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Nomology, Ontology, and Phenomenology of Law and Technology

Kieran Tranter*

INTRODUCTION

Bruno Latour has suggested that the defining feature of modernity has been the creation of monsters. While modernity has been erected on the division of the world into disciplines, a consequence of this neat structure has been the birthing of dilemmas—hybrids—that are not reducible to one order of knowledge.¹ One manifestation of this observation is the hybridization of thought through the crossing of disciplinary boundaries.

This Article presents such a hybrid, combining the insights of legal theory and technology studies. It argues that phenomenological approaches to the study of law and technology offer ways of understanding the relations between law and technology that avoids the reduction of law to technology that characterizes most current scholarship. The starting point is the observation that legal scholarship on technology articulates a theory of law and technology by conceiving law as a form of technical apparatus. In this it

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1. BRUNO LATOUR, WE HAVE NEVER BEEN MODERN 6 (Catherine Porter trans., Harvard Univ. Press 1993).

invokes the nomology of sovereignty. By nomology of sovereignty what is meant is the understanding of law as a field of knowledge about rules and the manipulation of rules for any purpose by the sovereign. Exposing the nomology of sovereignty leads to more essential critiques of technology, as the technical character of the law suggests the ontological concern with the forgetting of Being first raised by Martin Heidegger. Heidegger regarded modern technically mediated existence as highly negative. He located the origins of this negative modernity within the Western philosophic tradition. In response he argued the necessity for Western thought to return to its absolute origins in pre-Socratic Greek thinking as the study of ontology; that is the fundamental structure of the world and the relation of fundamental structure to human existence. In so doing, Heidegger claimed to have removed the conceptual distractions and obstacles from thinking about essential existence, or in his preferred term Being, and thereby opening a way to move beyond modern technical existence. Heidegger's way through what he sees as the debris of Western philosophy has been taken by subsequent theorists in several directions. One direction remains within Heidegger's metaphysics and tragically talks of absolute inescapable technology, the other returns to being-in the world in phenomenology. It is suggested that phenomenological approaches, approaches that begin with an appreciation of the world as is and by embracing the world's messy complexities, provide a rich vein for the development of law and technology studies.

Section I takes up the theme of monsters. It argues that the story of Frankenstein's monster manifests twice over within law and technology scholarship. In describing an abomination of technology and humanity, this literature frequently presents law as the savior. This is ironic because law turns out to be a monster in disguise; it is neither good nor evil, but pure power, which provided it is controlled by the lawyer/technocratic can benefit a passive society. Section II locates law and technology's technical law within the nomology of sovereignty. Through Weber, Schmitt, Benjamin, and Agamben, it is suggested that the violence intimate to the nomology of sovereignty has its origins in Heidegger's claim concerning the forgetting of Being in the West. Section III reexamines Heidegger's theory on the relations of technology and Being and considers its theoretical and methodological

outcomes. Section IV argues that phenomenology provides alternative methods through which to think about law and technology. In particular it argues that an approach to studying law and technology through detailed and rich historical examinations, or alternatively approaches focusing on the speculative narratives embedded in law and technology and utilizing science fiction to think through this speculative jurisdiction, provide alternative frames through which to further study law and technology.

I. FRANKENSTEIN AS MODERN MYTH

This section argues that legal writing about technology is ironically structured on the modern myth of Frankenstein. This argument begins by examining literary concern with Frankenstein as mythic and indeed as a modern myth. It then considers how this myth manifests twice over within law and technology scholarship. First, as narrative characterizing technology as a dangerous monster needed the control and order of law. Second, and ironically, the character of this controlling law is also monstrous.

The formal elements of Mary Shelley's *Frankenstein* are well known; scientist creates monster, scientist spurs monster, monster learns about humanity and its own monstrousness, monster becomes pathological, climaxing with monster killing scientist.² Indeed, critics referring to this familiarity have argued that Frankenstein is mythic rather than textual,³ suggesting a residual dilemma that surrounds the novel.⁴ Formally, myths are associated with the oral, pre-modern and pre-rational, and to talk about them in the context of a written, modern artifact like a novel is problematic: "Since modernity is opposed to myth, denying the relevance of myth to itself, there is an initial problem of how coherently to represent these accounts of myth in modern terms."⁵ Frankenstein, as cultural scholars have identified in their cataloguing of its archive,⁶ exceeds Shelley's text. Indeed, it is

2. MARY SHELLEY, *FRANKENSTEIN OR THE MODERN PROMETHEUS* (A Signet Classic 1965) (1818).

3. See, e.g., CHRIS BALDICK, *IN FRANKENSTEIN'S SHADOW: MYTH, MONSTROSITY AND NINETEENTH-CENTURY WRITING* 1-9 (1987); JON TURNEY, *FRANKENSTEIN'S FOOTSTEPS: SCIENCE, GENETICS, AND POPULAR CULTURE* 4 (1998).

4. TURNEY, *supra* note 3, at 26-28.

5. PETER FITZPATRICK, *THE MYTHOLOGY OF MODERN LAW* 14 (1992).

6. STEVEN EARL FORRY, *HIDEOUS PROGENIES: DRAMATIZATIONS OF*

this excess within popular culture that allows Frankenstein to be regarded as a myth manifesting differently in different articulations while possessing a stable symbolic content.⁷

Baldick also argues that Frankenstein is not just a modern myth but a myth of modernity.⁸ As numerous scholars have noted,⁹ the Frankenstein myth concerns the quintessential modern relationship between humans and technology. It provides what amounts to a series of interlinked characterizations and associations concerning scientists, technology, and human society. Victor Frankenstein, the protagonist, becomes the epitome of the rational scientist too preoccupied with his techniques to consider the wider context of his illicit creation.¹⁰ As a metaphor for technology, the monster is ambiguous: it has the potential for good¹¹ (e.g., rescuing a child, appreciating classical literature and history such as Goethe, Plutarch, and Milton) and the potential for evil (e.g. murdering Elizabeth, Victor Frankenstein's bride, on their wedding night).¹² It is at once a thing to be pitied and a thing to be feared, and in most commentaries, Victor, with his ego and petty revulsion, is revealed as the true monster.¹³ The monster's "thing-ness," its status as external to humanity, is

FRANKENSTEIN FROM MARY SHELLEY TO THE PRESENT (1990); DONALD F. GLUT, THE FRANKENSTEIN ARCHIVE: ESSAYS ON THE MONSTER, THE MYTH, THE MOVIES AND MORE (2002). See generally DONALD F. GLUT, THE FRANKENSTEIN CATALOG (1984) (compiling a variety of works derived from the story of Frankenstein, including novels, translations, adaptations, series, stage plays, films, and musical recordings).

7. See WALTER ONG, ORALITY AND LITERACY: THE TECHNOLOGIZING OF THE WORD 12 (1982) ("The elements out of which a term is originally built usually, and probably always, linger somehow in subsequent meanings, perhaps obscurely but often powerfully and even irreducibly.").

8. BALDICK, *supra* note 3, at 5.

9. See BRIAN ALDISS & DAVID WINGROVE, TRILLION YEAR SPREE: THE HISTORY OF SCIENCE FICTION 51 (1986); THE ENDURANCE OF FRANKENSTEIN: ESSAYS ON MARY SHELLEY'S NOVEL 3, 16-17 (George Levine ed., 1979). See generally FRED BOTTING, MAKING MONSTROUS: FRANKENSTEIN, CRITICISM, THEORY 164-84 (1991).

10. LANGDON WINNER, AUTONOMOUS TECHNOLOGY: TECHNICS-OUT-OF-CONTROL AS A THEME IN POLITICAL THOUGHT 313 (1977).

11. Robert Olorenshaw, *Narrating the Monster: From Mary Shelley to Bram Stoker*, in FRANKENSTEIN, CREATION AND MONSTROSITY 165 (Stephen Bann ed., 1994).

12. See TURNEY, *supra* note 3, at 38-39.

13. See, e.g., ANDREW MILNER, LITERATURE, CULTURE, AND SOCIETY 155 (1996) (describing Frankenstein's "bad faith" in renegeing on his promise to build a companion for his creation).

repeatedly emphasized through its exclusion from human society and its desire for a mate of its own kind. In this the monster animates an amoral and non-human conceptualization of technology. *Frankenstein* also shows the vulnerability of human society to the revolutionary, and often bloody, product of science. The scientist concocts in his private rooms, while society remains passive and impotent against the depravity of his monstrous creation. Absent from the myth is any institutional counterforce; there is no Inquisition or Royal Society to control the scientist and creation.

It is at this point that a specific legal articulation of the Frankenstein myth introduces a possible solution. Much law and technology scholarship articulates elements of the Frankenstein myth. It presents scientists as knowledge seekers blind to the wider contexts, and technologies as monsters possessing the potential for good and evil while society lies vulnerable. Glenn Reynolds exemplifies this tendency in a recent article about nanotechnology. He notes that society has yet to consider the wider dimensions of this research¹⁴ and he canvasses its potential benefits and harms.¹⁵ The legal supplement to the Frankenstein myth emerges in Reynolds' articulation of this social element. Reynolds devotes the bulk of his paper to assessing legal responses to nanotechnology.¹⁶ Faced with the possibility for good or evil from this technology, Reynolds' has society turning to law for regulation. Faced with the possibility for good or evil, society turns to law for regulation.¹⁷ Thus Reynolds follows a historical pattern of invoking law to regulate monsters.¹⁸ The question becomes one of selecting the right instruments. For Reynolds, this involves rejecting outright prohibition or exceptions for military purposes and affirming a compound approach of guidelines and licensing.¹⁹ In the legal Frankenstein story, society might be vulnerable to technological change, but it is not passive. Law will restrain the monster's urges and harness them for the greater good;

14. Glenn Harlan Reynolds, *Nanotechnology and Regulatory Policy: Three Futures*, 17 HARV. J.L. & TECH. 179, 180–81 (2003).

15. *Id.* at 185–187.

16. *See id.* at 187–209.

17. *Id.* at 187.

18. Martin Jay, *Must Justice Be Blind? The Challenge of Images to the Law*, in LAW AND THE IMAGE: THE AUTHORITY OF ART AND THE AESTHETICS OF LAW 19 (Costas Douzinas & Lynda Nead eds., 1999).

19. Reynolds, *supra* note 14, at 188–209.

provided “the political system will approach these questions with wisdom, rather than arrogance.”²⁰

An irony intrudes at this point. The legal articulation of the Frankenstein myth champions the law *as a technical discourse*.²¹ The assessment of law becomes a comparison of techniques, logically explored through analogy and evidence. Reynolds assesses the policy alternatives by examining the costs and benefits of prohibition,²² and comparing nanotechnology to the military restriction of nuclear technology²³ and regulation in the biotechnology regime.²⁴ Arthur Cockfield has hinted that often in the context of law and technology “law is technology.”²⁵ The irony lies in how the invocation of law to save society might reinscribe the Frankenstein myth, with the lawyer cast as the technician and law playing the role of the monster. What is being suggested is that the Frankenstein myth functions within discourses on law and technology. That it is not just a collection of images of technology out of control or of the immorality of science, but replicates itself within the arguments by lawyers concerning legal responses to technology. Law is seen as power which can be used for good, or more precisely to achieve good within society. However, this good is not intrinsic to law. Like the monster law is beyond good and evil, a pure power, and it is only when subject to the will of the lawyer/technician can its power be harnessed for good. The irony is in invoking law to save society from the possible depredations of monstrous technology what is unleashed is another monster, the “tame” monster of law.

There are two immediate responses to this observation. The first is that it is theoretically interesting but superfluous to the pragmatics of public policy. Intellectual sustenance for this approach can be found in Søren Kierkegaard, who considers that irony “limits, finitizes, and circumscribes” and in doing so actually grounds a practical and engaged living.²⁶

20. *Id.* at 209.

21. See Annelise Riles, *A New Agenda for the Cultural Study of Law: Taking on the Technicalities*, 53 *BUFF. L. REV.* 973, 975–76 (2005).

22. Reynolds, *supra* note 14, at 188–92.

23. *Id.* at 193–207.

24. *Id.* at 197–200.

25. Arthur J. Cockfield, *Towards a Law and Technology Theory*, 30 *MAN. L.J.* 382, 402 (2005).

26. SOREN KIERKEGAARD, *THE CONCEPT OF IRONY WITH CONTINUAL*

The second response is that the proposition that law is a fantastic technological terror is an extreme example of totalizing categorization obliterating questions of degree. In short, if law is technology, then it is a beast that has long been domesticated, and like the motor vehicle, it is familiar. This ignores a salient truth: just because the motor vehicle is familiar does not excuse it from being the eleventh worldwide killer in 2002.²⁷ Similarly, the fact that techniques of law, (e.g. of the merits and substance of various forms of regulation, of the effect of criminal sanctions and prohibitions, when guidelines are more appropriate than statutory codes, the utility of administrators with wide discretionary powers as opposed to narrowly prescribed duties and obligations, of the cost and benefits of letting the courts develop law on a case to case basis) are familiar does not mean that the implications of law as technology are not significant for thinking about a theory of law and technology. Indeed, monstrous violence and death reappear when considering the theoretical implications of this recognition.

II. NOMOLOGY OF SOVEREIGNTY

The previous section, by identifying the function of the Frankenstein myth, showed that the relevant scholarship disclosed a theory of law and technology in subsuming law to technology. This section considers this within the context of legal theory. It is argued that in doing this, what is disclosed is the nomology of sovereignty, which at its most pure, or most extreme, threatens human life. This conclusion is reached through recognition of the nomology of sovereignty behind the technical discussions of law and technology about how to do things with rules. It considers how the nomology of sovereignty can be part explained, as Weber did, as the rationalization of the legal system. However, in emphasizing rationality the essential irrationality has been under-emphasized. Through experience of, involvement with, and reflection on, the transformation of the Weimar Republic to Nazi Germany, writers such as Schmitt, Benjamin and Agamben expose the fundamental violence of sovereignty and its ultimate transformation of humans into animals.

The articulation of the Frankenstein myth in law and

REFERENCE TO SOCRATES 326 (Howard V. Hong & Edna H. Hong eds., 1989).

27. WORLD REPORT ON ROAD TRAFFIC INJURY PREVENTION 4 (Margie Peden et al. eds., 2004).

technology scholarship means that legal thinking about technology embodies a particular nomology. This unifies the ostensibly diverse strands of law and technology scholarship. Legal scholarship on technology concerns the effectiveness of rules. The analysis proceeds by way of statements concerning how rules work, often drawing upon *a priori* thinking about rules mixed with case studies through which psychological, sociological, and economic assumptions concerning actors' responses to particular forms of regulation are examined. Regardless of whether the authors ultimately select standards, licensing, self-regulation, economic incentives, criminalization, regulation, or the common law, there is a shared nomology of law that serves as a tool for public policy. This nomology is not unique to law and technology, but rather, as W. T. Murphy has observed, it is the bedrock of modern legal thinking:

Law today is . . . constrained to produce knowledge at secondhand: knowledge of the rules which govern – or fail to govern, as the case may be – the world as it is 'really' known to be – by psychologists, economists, accountants and others. Knowledge and power, at one level, are no less linked than they were before. But now the link must be specified in terms of the production of performance indicators and the diagnosis of social problems²⁸

However, to consider the theoretical implications of law as technology another story needs to be told.

The English common law was an oral law, indeed a mythic law.²⁹ Located in time immemorial, it claimed that it emanated from the very soil of the "Sceptred Isle."³⁰ The judicial function was to declare the law, not make it, and legal training amounted to memorizing speeches and decisions of the past.³¹ Written records, where they existed, were cryptic mnemonic aids for those initiated in their craft of "artificial reason."³² Nonetheless, as with the wider Reformation, England experienced legal reformation in the expansion of the

28. W. T. Murphy, *The Oldest Social Science? The Epistemic Properties of the Common Law Tradition*, 54 MOD. L. REV. 182, 213–14 (1991).

29. See COSTAS DOUZINA ET AL., POSTMODERN JURISPRUDENCE: THE LAW OF TEXT IN THE TEXTS OF LAW 153 (1991).

30. See, e.g., PETER GOODRICH, LANGUAGES OF LAW: FROM LOGICS OF MEMORY TO NOMADIC MASKS 210–13 (1990); see also GERALD J. POSTEMA, BENTHAM AND THE COMMON LAW TRADITION 4–5 (1986).

31. See generally PETER GOODRICH, LAW IN THE COURTS OF LOVE 86–90 (1996) (discussing oral legal traditions).

32. *Id.* at 108.

influence of the Crown and Parliament.³³ Politically, the common law negotiated this period by aligning with the Crown and nationalizing its jurisdiction as the King's Court.³⁴ It also developed the doctrine of parliamentary supremacy, reinventing itself as a body of inferior rules.³⁵ This preserved much of the common law, both in practice and doctrine, until the reforms of the nineteenth century.³⁶

Such a story is familiar. Indeed, the narrative of the Reformation birthing a spirit of rational activity that refashions the pre-modern into the modern has its origins in Max Weber's rationalization thesis, which linked protestant asceticism to the formation of capitalism and also to the machine-culture of modern life.³⁷ For Weber, the evolution of modern law was a movement from oral legal orders, to systemic codification, to the provision of procedural frameworks for rational bureaucracy.³⁸ Weber, however, underplayed a critical creature that emerged during this development—the sovereign. Familiarity dims awareness of how radical Thomas Hobbes's *Leviathan* was within Western political and legal thought.³⁹ Hobbes declared a particular act, the social contract, as the origin of political and legal authority.⁴⁰ Unlike the common law and other pre-modern orders where continuity was assured through transcendence, the emergence of the sovereign meant that questions of authority became temporal.⁴¹ Law was no longer law because of custom or nature, but rather because of a valid lawmaking act of the sovereign. The modern history of jurisprudence can be read as an attempt to relate the sovereign's plastic law to

33. W. T. MURPHY, *THE OLDEST SOCIAL SCIENCE?: CONFIGURATIONS OF LAW AND MODERNITY* 72–74 (1997).

34. See generally PETER GOODRICH, *OEDIPUS LEX: PSYCHOANALYSIS, HISTORY, LAW* 70 (1995) (describing the adoption of the common law in medieval England).

35. POSTEMA, *supra* note 30, at 102–03.

36. See H. L. A. HART, *ESSAYS ON BENTHAM: STUDIES IN JURISPRUDENCE AND POLITICAL THEORY* 29–34 (1982).

37. MAX WEBER, *THE PROTESTANT ETHIC AND THE SPIRIT OF CAPITALISM* 180–182 (Talcott Parsons trans. 1992).

38. Maureen Cain, *The Limits of Idealism: Max Weber and the Sociology of Law*, 3 RES. L. & SOC. 53, 70 (1980).

39. DAVID SAUNDERS, *ANTI-LAWYERS: RELIGION AND THE CRITICS OF LAW AND STATE* 4–6 (1997).

40. THOMAS HOBBS, *LEVIATHAN* 90 (A.D. Lindsay & K.R. Minogue eds., 1914).

41. POSTEMA, *supra* note 30, at 48.

questions of identification, obedience, and limit.⁴² With the sovereign, creation is not located in a mythic time but merges with lived time to be an ever present possibility. Jacques Derrida termed this critical element of modernity “white mythology.”⁴³ The phrase plays on ambiguities.⁴⁴ First, “white” is used in two ways; it is a white mythology because it belongs to the West; and it is white because it is a colorless myth. In merging mythic and lived time, the color and poetry of the creation stories of pre-modernity are lost. Gesturing towards Weber, creation becomes a bland task of the sovereign’s officers writing on white paper. Second, to talk of a mythology of modernity is to deny modernity’s own claims to have dispensed with the irrational.

It is the revelation of the irrational at the core of sovereignty that has been missed by much twentieth century legal thought. Hans Kelsen proposed a legal order rationally unfolding from a shared *grundnorm*; that the legal order is legitimized by a fundamental “political” acceptance of its legitimacy.⁴⁵ Ronald Dworkin proposed a theory of adjudication as a Herculean, yet rational activity.⁴⁶ Indeed, liberal political thought has tried to deny the irrationality of sovereignty; having birthed Leviathan, theory has put it in the chains of constitutions, rights, separation of powers, and due process.⁴⁷ It took the chaos of the Weimar Republic, and the perception that rational application of liberal values could not form a nation capable of defending itself from its internal and external enemies that led the Weimar jurist Carl Schmitt to reaffirm the irrationality of sovereignty.⁴⁸ Schmitt defined the sovereign as the entity that could declare an exception: suspending or abolishing the existing order, and deciding on whatever measures are required to address the exception.⁴⁹

42. COSTAS DOUZINAS, *THE END OF HUMAN RIGHTS: CRITICAL LEGAL THOUGHT AT THE TURN OF THE CENTURY* 110–112 (2000).

43. JACQUES DERRIDA, *MARGINS OF PHILOSOPHY* 213 (Alan Bass trans., 1982).

44. FITZPATRICK, *supra* note 5, at 32.

45. HANS KELSEN, *INTRODUCTION TO THE PROBLEMS OF LEGAL THEORY* 56–57 (Bonnie Litschewski Paulson & Stanley L. Paulson trans., 1992).

46. RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 105–123 (1977).

47. STEPHEN HOLMES, *PASSIONS AND CONSTRAINT: ON THE THEORY OF LIBERAL DEMOCRACY* 69–70 (1995).

48. CARL SCHMITT, *THE CONCEPT OF THE POLITICAL* 32 (George Schwab trans. 1996).

49. CARL SCHMITT, *POLITICAL THEOLOGY: FOUR CHAPTERS ON THE*

Schmitt was one of the first legal theorists to recognize that law in modernity is another technology.⁵⁰ He perceived positive law of liberal legislatures as mere naked power transmuted into whatever ends are regarded as appropriate.⁵¹ He was similarly critical of liberalism because it could not distinguish between values—between ends that will defend and sustain the nation, and ends that give the nation over to its enemies. In this inability to distinguish values, modern law and liberalism both manifest the “economical-technical apparatus” which is indifferent between “a silk blouse and poison gas.”⁵²

For Schmitt, the hubris of liberalism, its inability to distinguish between values and ultimately between friends and enemies of the nation, creates the nemesis of sovereign authoritarianism. However, Schmitt’s polemics of sovereigns and enemies was also “white.” He is not concerned with the personal costs of the rationality/irrationality of sovereignty. Schmitt’s context as a conservative jurist who advances within the academy and goes on to hold official appointments within the Nazi government⁵³ should remind of the violence and horrors of that regime. Nevertheless, it has only been recently that violence has been appreciated within legal theory. The vehicle for this has been the reception of another Weimar intellectual, in correspondence with Schmitt,⁵⁴ but from a radically different political and religious tradition—Walter Benjamin. Through an extended examination of Benjamin’s “Critique of Violence,” Derrida has reminded jurisprudence that legal order is founded on two violences: the violence that founds and the violence that preserves the law.⁵⁵ Both become indistinguishable in the modern apparatus of the police state.

CONCEPT OF SOVEREIGNTY 5 (George Schwab trans. 1985); *see also* CARL SCHMITT, LEGALITY AND LEGITIMACY 69 (Jeffery Seitzer trans., 2004).

50. JOHN P. MCCORMICK, CARL SCHMITT’S CRITIQUE OF LIBERALISM: AGAINST POLITICS AS TECHNOLOGY 31–82 (1997).

51. Carl Schmitt, *The Age of Neutralizations and Depoliticizations (1929)*, 96 TELOS 130 (1993).

52. CARL SCHMITT, THE IDEA OF REPRESENTATION: A DISCUSSION 39 (E.M. Codd trans., 1988).

53. *See* JAN-WERNER MÜLLER, *A Dangerous Mind: Carl Schmitt In Post-War European Thought* (2003).

54. Samuel Weber, *Taking Exception to Decision: Walter Benjamin and Carl Schmitt*, 22 DIACRITICS 5 (1992).

55. Jacques Derrida, *Force of Law: The “Mystical Foundations of Authority”*, in DECONSTRUCTION AND THE POSSIBILITY OF JUSTICE 3, 35–40 (Drucilla Cornell et al. eds., 1992).

The shared commonality is a species of “mythic violence,” as opposed to “divine violence” and the defining characteristic is the need for blood:⁵⁶ “Mythical violence is bloody power over mere life for its own sake, divine violence pure power over all life for the sake of the living. The first demands sacrifice, the second accepts it.⁵⁷ It is tempting to locate Benjamin’s essay within his life, and consider, in his suicide on the Spanish border in 1940 while fleeing occupied France, that the text was a response to the Nazi state. However, “Critique of Violence,” dated 1921, anticipated rather than “witnessed” the bloody machinations of Nazism.⁵⁸ Giorgio Agamben, drawing upon Schmitt and Benjamin, does attempt to construct a juridical account of Nazism’s signature excess: the concentration camp. For Agamben, the camp is not to be understood as just an evil, the tragic production of madmen, but rather it’s a manifestation of the “perfection” of the nomology of sovereignty in the West.⁵⁹ The camp makes explicit that the ultimate fact of sovereignty is violent power over bare life, the very physical bodies of subjects.⁶⁰

So the nomology of law and technology scholarship reveals three elements. The first is that law is considered technological, a discourse about techniques and effectiveness. The second is that this rational project is grounded on the terrible irrationality of sovereign violence. Sovereignty allowed law to become historical and instrumental; it facilitated a changeable law that in essence is not subject to a meta-law.⁶¹ Indeed, it is sensible to talk of a non-nomology of sovereignty.⁶² The place where the extent of this law of a sovereign that knows no boundaries is registered is the human body. The third is this sacrilege of the human. In this camp, Agamben forcefully reminds that the human becomes just an

56. *Id.* at 42–45, 52.

57. WALTER BENJAMIN, *Critique of Violence*, in REFLECTIONS: ESSAYS, APHORISMS, AUTOBIOGRAPHICAL WRITINGS 277, 297 (Edmund Jephcott trans., 1978).

58. Derrida, *supra* note 55, at 57.

59. GIORGIO AGAMBEN, HOMO SACER: SOVEREIGN POWER AND BARE LIFE 166–174 (1998).

60. *Id.* at 175.

61. William P. MacNeil, *One Recht to Rule Them All! Law’s Empire in the Age of Empire*, in AESTHETICS IN LAW AND CULTURE: TEXT, IMAGES, SCREENS 279 (Andrew T. Kenyon & Peter D. Rush eds., 2004).

62. Philippe Nonet, *What is Positive Law?*, 100 YALE L.J. 667, 679–680 (1990).

animal: a material substance to be used and consumed.⁶³ A symptom of this is rights discourse where the subject before the law is atomized into a collective of abstract postulates that do not relate to, nor preserve, biological life.⁶⁴ Absent from this tripartite of nomology, sovereignty, and animal is a perception of what it might mean to be an entity that can appreciate itself as an entity, and can appreciate itself thrown into a world possessing this temporal structure. This suggests the third Weimar intellectual invoked by Derrida—Heidegger and his concern with a return to ontology as the task of philosophy.⁶⁵

III. ONTOLOGY OF TECHNOLOGY

This section approaches law and technology from technological theory: specifically through remembering Heidegger's account of the essence of technology. Heidegger is significant because, unlike legal theory where attempts to secure humanity from nomology-sovereignty-animal often end in rhetorical calls that knowing the "machine" of West will lead to its interruption,⁶⁶ or with variations on Benjamin's divine violence,⁶⁷ technology studies drawn from Heidegger demonstrate ways of living with technology.

Heidegger has had a minimal impact on legal theory.⁶⁸ His influence has been limited to studies that have attempted to make connections between Continental hermeneutics and the Anglo-American legal tradition.⁶⁹ It seems surprising that anxieties concerning the denigration of law into technology have not drawn upon Heidegger. This absence is possibly explained by the on-going controversy regarding Heidegger's involvement with the Nazis and the suggestion that his Nazi involvement can be grounded in his thought.⁷⁰ This is

63. AGAMBEN, *supra* note 59, at 187.

64. DOUZINAS, *supra* note 42, at 322.

65. Derrida, *supra* note 55, at 46.

66. GIORGIO AGAMBEN, STATE OF EXCEPTION 87–88 (2005).

67. COSTAS DOUZINAS & RONNIE WARRINGTON, JUSTICE MISCARRIED: ETHICS, AESTHETICS AND THE LAW (1994).

68. Panu Minkkinen, *Right Things: On the Question of Being and Law*, 7 LAW & CRITIQUE 65, 66 (1996).

69. Ingrid Scheibler, *Gadamer, Heidegger and the Social Dimensions of Language: Reflections on the Critical Potential of Hermeneutical Philosophy* 76 CHI.-KENT L. REV. 853, 856–69 (2000); Brian Leiter, *Heidegger and the Theory of Adjudication*, 106 YALE L.J. 253, 253–54 (1996).

70. Matthias Mahlmann, *Heidegger's Political Philosophy and the Theory of the Liberal State*, 14 LAW AND CRITIQUE 229, 240–244 (2003).

unfortunate. Where legal theory presented a juridical-political account of law as technology, Heidegger exposes the ontological commitments that manifest within that account. In doing so, he opens fresh ways to think about law and technology. What follows is an exposition of Heidegger's relationship between technology and his fundamental concern with the forgetting of Being in the West. What is suggested is that this metaphysical account has been highly influential within technology studies and has led to two styles of scholarship. The first remains metaphysical and regards technology as polluting and degrading human existence. The second, grounded on being-in the world opens to phenomenology.

Heidegger's writings on technology need to be considered from within his wider concerns with the impoverishment of ontology, and the need for a revitalized ontology to structure critical questions about modern existence.⁷¹ For Heidegger, the Western metaphysical tradition had forgotten the question of Being.⁷² That is, the ontological task of thinking about being an entity disclosed to its own existence⁷³ had been passed over in favor of "pragmatic" abstractions.⁷⁴ Technology was important to Heidegger, not because of its monstrous violence, but because in its holding sway the forgetting of Being is absolute.⁷⁵ Therefore, Heidegger's grappling with technology belongs within a project to find a "restorative surmounting of the essence of technology."⁷⁶ For Heidegger, technology does not just amount to machines, but is a fundamental way of revealing the world as is:

The revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challenging-forth. That challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is

71. ANDREW FEENBERG, HEIDEGGER AND MARCUSE: THE CATASTROPHE AND REDEMPTION OF HISTORY 25 (2005).

72. MARTIN HEIDEGGER, BEING AND TIME 1 (Joan Stambaugh trans., 1996).

73. *Id.* at 10–11, 40–42.

74. MICHAEL E. ZIMMERMAN, HEIDEGGER'S CONFRONTATION WITH MODERNITY: TECHNOLOGY, POLITICS, AND ART 152 (1990).

75. MARTIN HEIDEGGER, *The Age of the World Picture*, in THE QUESTION CONCERNING TECHNOLOGY AND OTHER ESSAYS 115, 116 (William Lovitt trans., 1977).

76. MARTIN HEIDEGGER, *The Turning*, in THE QUESTION CONCERNING TECHNOLOGY AND OTHER ESSAYS 36, 39 (William Lovitt trans., 1977).

stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew.⁷⁷

This leads Heidegger to name the essence of technology *Enframing*:⁷⁸

Enframing means the gathering together of that setting-upon which sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as standing-reserve. Enframing means that way of revealing which holds sway in the essence of modern technology and which is nothing technological.⁷⁹

This quote suggests three elements concerning the essence of technology. The first is that technology “revel[s] the real:” that is it occupies the very essence of humanity. For Heidegger, to be human means to be “thrown” into the world, and our fate is to come to a dwelling in this finite totality.⁸⁰ Second, humans in their “thrown-ness” are gifted with the responsibility towards truth; “man is given to belong to the coming-to-pass of truth.”⁸¹ Heidegger’s use of truth is not to invoke correspondence,⁸² but a pre-Socratic notion of “truth” (*alētheia*) concerned with how the world is revealed. The destiny of humanity is in bringing forth what is undisclosed.⁸³ Third, Heidegger’s understanding of technology as a way of revealing, allowed him to situate technology within Being. “Technology is a mode of revealing. Technology comes to presence in the realm where revealing and un-concealment take place, where *alētheia*, truth, happens.”⁸⁴

Having located technology within Being, Heidegger sets out the ontological commitments of such a Being. Enframing involves “setting upon.” Rather than letting beings reveal themselves to humanity, humanity imposes a technological “truth” onto entities.⁸⁵ This truth is a “standing-reserve” in a stockpile, ready-at-hand to be deployed.⁸⁶ The fate of the world is it becomes atomized, abstracted, and

77. MARTIN HEIDEGGER, *The Question Concerning Technology*, in *THE QUESTION CONCERNING TECHNOLOGY AND OTHER ESSAYS* 3, 16 (William Lovitt trans., 1977).

78. *Id.* at 19.

79. *Id.* at 20.

80. HEIDEGGER, *supra* note 72, at 127–29.

81. HEIDEGGER, *supra* note 77, at 32.

82. HEIDEGGER, *supra* note 75, at 127.

83. HEIDEGGER, *supra* note 77, at 32.

84. *Id.* at 13.

85. *Id.* at 15–18.

86. *Id.* at 14.

commensurable.⁸⁷ There is a danger in this:

As soon as the unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of the objectlessness is nothing but the orderer of the standing-reserve, then he comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve.⁸⁸

This loss in standing-reserve discloses an even greater danger. “Where this ordering holds sway, it drives out every other possibility of revealing. Above all, Enframing conceals that revealing which . . . lets what presences come forth into appearance.”⁸⁹ The challenging-forth of Enframing blocks more original bringing-forth of things in-themselves. The supreme danger then is that Enframing conceals the very possibility of revealing, removing humanity from *alētheia*.⁹⁰

In summary, technology for Heidegger was not just machines: it was a fundamental way to view the world, a way of seeing that reduces the world to a mere stockpile of resources waiting for human use. This extends to the way of seeing humans themselves. The ultimate danger, however, is that revealing the world is the fundamental task of Being. Technology in occupying this place within modern existence deprives us humans from seeing the ‘truth’ of the world. Technology, thus properly understood and located means that we live a polluted and corrupted form of existences that can not see beyond the ceaseless calculus of technology.

There are two elements from Heidegger for thinking about law and technology. The first exculpates law and technology scholarship’s reduction of law to technology. Where “the coming to presence of technology . . . is Being itself,”⁹¹ an instrumental law is consistent with the foundation ontology of the “age.”⁹² Indeed, Heidegger expects nothing more from “research man.”⁹³ In this light, the technology of law in law and technology is revealed, not as ironic, but as another sign of the victory of technology. Developing this insight at the level of theory, Heidegger offers an ontological location for the

87. *Id.* at 19.

88. *Id.* at 26–27.

89. *Id.* at 27.

90. *Id.* at 28.

91. HEIDEGGER, *supra* note 76, at 38.

92. HEIDEGGER, *supra* note 75, at 115.

93. *Id.* at 125.

nomology of sovereignty identified previously. Heidegger provides an explanation for the juridical-political account of the rise of sovereignty and positivism; both witness a challenging-forth of law into a malleable standing-reserve ready to be deployed.⁹⁴ He also charts the bloody “precipitous fall” when orderer becomes ordered. In this, Heidegger’s technology writings possibly allow for another approach to the maligned task of an ontology—or at least a regional ontology⁹⁵—of law.⁹⁶

The second element is the delineation of the task of thinking about law and technology once the holding sway of technology is noted. Heidegger’s account of technology has had a decisive influence on technology studies; Herbert Marcuse,⁹⁷ Jacques Ellul,⁹⁸ and more recently Albert Borgmann⁹⁹ and Francis Fukuyama¹⁰⁰ have grounded their critiques of modern technology on metaphysical foundations. There is a tragic aura surrounding this tradition.¹⁰¹ The absolute of technology, its occupation of Being, and the decline of more authentic Being, means that it is difficult to theorize strategies for overcoming technology.¹⁰² Heidegger’s response is poetic. Indeed, there is a poetic resonance to his thought—truth as revealing, being as responsibility to revealing—that crescendos with his affirmation of the “saving power” of art.¹⁰³ For Heidegger, meditation on the essence of technology does not

94. Nonet, *supra* note 62, at 686.

95. JARKKO TONTII, *RIGHT AND PREJUDICE: PROLEGOMENA TO A HERMENEUTICAL PHILOSOPHY OF LAW* 82 (2004).

96. Minkkinen, *supra* note 68, at 84.

97. HERBERT MARCUSE, *ONE-DIMENSIONAL MAN: STUDIES IN THE IDEOLOGY OF ADVANCED INDUSTRIAL SOCIETY* (1964); *see also* FEENBERG, *supra* note 71.

98. JACQUES ELLUL, *THE TECHNOLOGICAL SOCIETY* (John Wilkinson trans., 1964); *see also* ANDREW FEENBERG, *QUESTIONING TECHNOLOGY* 3 (1999).

99. ALBERT BORGMANN, *HOLDING ON TO REALITY: THE NATURE OF INFORMATION AT THE TURN OF THE MILLENNIUM* (1999); *see also* Peter-Paul Verbeek, *Devices of Engagement: On Borgmann’s Philosophy of Information and Technology*, 6 *TECHNE* 69 (2002).

100. FRANCIS FUKUYAMA, *OUR POSTHUMAN FUTURE: CONSEQUENCES OF THE BIOTECHNOLOGY REVOLUTION* (2002); *see also* David E. Tabachnick, *The Politics and Philosophy of Anti-Science*, 9 *TECHNE* 27 (2005).

101. STEPHEN HILL, *THE TRAGEDY OF TECHNOLOGY: HUMAN LIBERATION VERSUS DOMINATION IN THE LATE TWENTIETH CENTURY* (1988); *see also* David E. Tabachnick, *Techne, Technology, and Tragedy*, 7 *TECHNE* 91 (2004).

102. Andrew Norris, *Heideggerian Law Beyond Law?: Technique, Recht, and Phusis*, 2 *LAW CULTURE & HUMAN* 341, 344 (2006).

103. HEIDEGGER, *supra* note 72, at 32.

only show the dominance of technology in the West but reminds us of technology's ancient sibling. Referring again to pre-Socratic Greece, he observed that once "there was a time when the bringing-forth of the true into the beautiful was called *technē*. And the *poēisis* of the fine arts also was called *technē*."¹⁰⁴ He suggested that "revealing lays claim to the arts most primally, so that they for their part may expressly foster the growth of the saving power, may awaken."¹⁰⁵ Heidegger's affirmation of art as the place which has kept alive alternative modes of revealing is contested. Indeed, Benjamin suggested that in art the combination of art and technique is inseparable; art anticipates technology, and the technicality of art demarks "humanity's entire mode of existence."¹⁰⁶ Benjamin can be seen as pointing towards an alternative direction from Heidegger: a turning away from metaphysics, and also a turning away from romantic attachments to an idealized past of authentic being. In technology studies, this post-Heideggerian strand can be identified in Donna Haraway.¹⁰⁷

Haraway expressly rejected metaphysical approaches to thinking about technology. Her appropriation of science fiction's cyborg is without tragedy or romance. The cyborg is a materialist account of what it means to be human at the particular moment when technology has undermined the past certainties of existence:¹⁰⁸ "[t]he cyborg is our ontology."¹⁰⁹ In this, Haraway seems to reiterate Heidegger's declaration of the occupation of Being by technology. However, instead of talking of the saving power of art, Haraway affirms active engagement with the contemporary "informatics of domination."¹¹⁰ The issue is staking a life, and politics, from "inside the belly of the monster" of modern technological existence.¹¹¹ Rosi Braidotti, in recognizing the influences of

104. *Id.* at 34.

105. *Id.* at 35.

106. WALTER BENJAMIN, *The Work of Art in the Age of Mechanical Reproduction*, in ILLUMINATIONS 217, 222 (Hannah Arendt ed., 1968).

107. ROSI BRAIDOTTI, TRANSPOSITIONS: ON NOMADIC ETHICS 57 (2006).

108. DONNA HARAWAY, MODEST_WITNESS@SECOND_MILLENIUM.FEMALEMAN@_MEETS_ONCOMOUS E™: FEMINISM AND TECHNOSCIENCE 51 (1997).

109. Donna J. Haraway, *A Manifesto for Cyborgs: Science, Technology and Socialist Feminism in the 1980s*, 80 SOCIALIST REV. 65, 66 (1985).

110. *Id.* at 79.

111. Constance Penley & Andrew Ross, *Cyborgs at Large: Interview with Donna Haraway*, 25 SOC. TEXT 8, 12 (1990).

French post-structuralists Michel Foucault and Gilles Deleuze in Haraway's cyborg, has argued for the "embodied, materialist foundations of the subject in a non-essentialist yet accountable manner."¹¹² In doing so she affirms that this approach takes as its orientation Heidegger's recognition that the horizon of humanity rests in being thrown into the world, yet it avoids his romance with art and metaphysics.¹¹³ For Braidotti, being-in the world must ground development of "new cosmologies . . . that are appropriate to our own high level of technological development."¹¹⁴ Braidotti's talk of cosmologies suggests a revisiting of law and technology scholarship. What is suggested here is a challenge to the double inscription of the Frankenstein myth within law and technology scholarship that was identified earlier. Instead, of a monstrous technology needing a monstrous law, both technology and law are repositioned as thoroughly social, as being-in the world. In this they present no-less danger to society or even human life, however, their dangerous becomes a known quantity and the complex relationships between law and technology are exposed.

IV. PHENOMENOLOGY OF TECHNOLOGY

Haraway and Braidotti both approach the question of technology and humanity from the ground of being-in the world. In this they offer a phenomenology of technology. Their concern is with charting the complex relations of culture, nature, knowledge, and power of the here-and-now, as the basis for political engagement and ethical conduct. My argument is that the phenomenology of technology has the potential to enrich law and technology. Two approaches for a phenomenology of law and technology are explored. The first follows Haraway and Latour and examines the relationships of law, technology and society from within a detailed historical frame. The second draws upon science fiction to consider the cultural basis of the speculative jurisdiction of law and technology.

The first draws upon Haraway's desire that "[a]ny interesting being in technoscience, such as a textbook, molecule, equation . . . can – and often should – be teased open to show the sticky economic, technical, political, organic,

112. BRAIDOTTI, *supra* note 107, at 137.

113. *Id.* at 142.

114. *Id.* at 272.

historical, mythic and textual threads that make up its tissues.”¹¹⁵ Notwithstanding her disagreement with Latour,¹¹⁶ this task seems analogous to Latour’s actor network theory. Latour’s early research considered how scientific facts do not arrive from the black box of the laboratory but emerges through a process of translation and alliances between scientists and other actors. While Latour considers actors from within a scientist’s research community and political, media, and economic actors, his insight is that machines and objects also should be treated as actors within his sociology of networks.¹¹⁷ In *Aramis or The Love of Technology*, Latour traces how mundane and often haphazard political, economic, social, and technical factors, and the personalities of agents, including the personality of the technology itself, interacted over an eighteen year period, and led to the abandonment of an alternative public transport system for Paris.¹¹⁸

This body of research suggests an approach to law and technology that undertakes detailed examinations of the networks at play behind not just technological change, but also legal responses to technological change. Templates for this type of study can be found in the detailed historical studies on the relations between culture and technology, for example Wolfgang Schivelbusch’s complex study of railways in the nineteenth century.¹¹⁹ There has been some research that undertakes this type of historical analysis to law and technology. Brad Sherman and Lionel Bently trace the multitude of factors that impacted the changes and emergence of British intellectual property law, noting the variations in alliances of representations, interests groups and general conceptions of good government during their extended time period (1760-1911).¹²⁰ I have tried to show how an early Australian motor vehicle law can be understood, not as a simplistic reaction to the motor vehicle, but a complex

115. HARAWAY, *supra* note 108, at 68.

116. *Id.* at 34.

117. BRUNO LATOUR, *SCIENCE IN ACTION: HOW TO FOLLOW SCIENTISTS AND ENGINEERS THROUGH SOCIETY* (1987).

118. BRUNO LATOUR, *ARAMIS OR THE LOVE OF TECHNOLOGY* (Catherine Porter trans., 1996).

119. WOLFGANG SCHIVELBUSCH, *THE RAILWAY JOURNEY: THE INDUSTRIALIZATION OF TIME AND SPACE IN THE 19TH CENTURY* (1986).

120. BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW: THE BRITISH EXPERIENCE 1760–1911* (1999).

interchange of public anxiety, the personality of specific politicians, use of English templates, lobbying by the nascent motoring club, and a manifestation of a public culture that celebrated technology as progress, dreamed of mass automotive transportation and regarded regulative legislation as the best, most modern form of governing.¹²¹

This type of research maps the complexities of culture and personalities, and the more “abstract” political, economic, and legal contexts. It shows how law and technology are not only joined at the site of law regulating a technology, but also have multiple intersections. It can also contribute to technology studies. Notwithstanding Latour’s passing reference to law as a “modest technology,”¹²² law has not been considered within existing research. Indeed, when Latour writes about the red light flashing in his motor vehicle insisting that he fasten his seat belt,¹²³ it is a machine animated by ninety years of legal argument concerning who carries the liability for motor vehicle safety, the state, the manufacturer or the driver. Also, this form of scholarship, in building an archive of how actual laws, or even actual non-laws (movements towards law that were scuttled), can provide a basis for law and technology scholars to contribute to the task of advising about law and technology. Instead of passing responsibility to another black box—the political will—as Reynolds does, a more sophisticated generalization can be developed on how law and technology interact.

An alternative to this historical direction of a phenomenology of law and technology is to look at the everyday goings on of law and technology. This can be seen to follow the anthropological work of Marilyn Strathern who undertook an ethnographic study of *in vitro* fertilization (IVF)

121. Kieran Tranter, *The History of the Haste-Wagons: The Motor Car Act 1909 (VIC), Emergent Technology and the Call for Law*, 29 MELB. U. L. REV. 843 (2005).

122. LATOUR, *supra* note 118, at 45. Latour has recently written about the courtroom from his perspective of the production of “facts” in a laboratory. However, the traces of law on technology have not been thoroughly pursued. See Bruno Latour, *Scientific Objects and Legal Objectivity*, in *LAW, ANTHROPOLOGY, AND THE CONSTITUTION OF THE SOCIAL: MAKING PERSONS AND THINGS* 73 (Alain Pottage & Martha Mundy eds., 2004).

123. Bruno Latour, *Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts*, in *SHAPING TECHNOLOGY / BUILDING SOCIETY: STUDIES IN SOCIOTECHNICAL CHANGE* 225, 226 (Wiebe E. Bijker & John Law eds., 1992).

technologies to identify Western notions of kinship.¹²⁴ Her research is reminiscent of Shoshana Zuboff's description of double security doors at a mill that were phased so that only one could be open at any time; which broke because staff consistently pushed their way through.¹²⁵ At the level of being-in the world in the daily life of the contemporary West rarely does technology impose itself as Heidegger's Enframing, and rarely does law impose itself as abstract rules. Technology and law are part of the background of the activities of daily life, something Langdon Winner reminds about technology.¹²⁶ Mundane tasks such as driving a motor vehicle down a street involve a kaleidoscope of legal and technical considerations and interrelations. A human driving invokes legal regimes of licensing, criminal laws relating to motor vehicles, of torts and insurance law (concerning liability) and of contract, consumer protection and property (concerning ownership) and reliance on the multiple technical apparatus of the motor vehicle, which in-turn are influenced by laws relating to, for example safety and fuel consumption. Given these complexities of human, law and technology no wonder human car relations have been argued to be cybernetic.¹²⁷ However, in the task of driving, the driver remains ignorant of these and their multiple interactions. Drawing upon Latour's later work it can be said that technological objects and humans jointly form a culture which structures particular forms of relationships (between objects and objects, objects and humans, humans and humans) and within which some relationships possess particular characteristics that allow them to be regarded as profane, ethical, or legal.¹²⁸ In this manifestation, a phenomenology of law and technology examines the contours of contemporary culture locating the relations of law and technology in the realm of practice. Implicit in this approach is the realization that in the messy complexities of everyday

124. MARILYN STRATHERN, *AFTER NATURE: ENGLISH KINSHIP IN THE LATE TWENTIETH CENTURY* (1992).

125. SHOSHANA ZUBOFF, *IN THE AGE OF THE SMART MACHINE: THE FUTURE OF WORK AND POWER* 21 (1988).

126. LANGDON WINNER, *THE WHALE AND THE REACTOR: A SEARCH FOR LIMITS IN AN AGE OF HIGH TECHNOLOGY* 7-9 (1986).

127. Kieran Tranter, *Mad Max: The Car and Australian Government*, 5 *NATIONAL IDENTITIES* 61 (2003).

128. Bruno Latour, *Morality and Technology: The End of the Means*, 19 *THEORY, CULTURE AND SOC'Y* 247 (2002).

life in the West there is a more sophisticated “theorizing” of technology than the post-Heidegger metaphysical strand within technology studies recognizes.¹²⁹ Notwithstanding, as was identified earlier, this tradition’s tendency to announce technology as holding sway over Being and, therefore, the difficulties, if not the inescapable tragedy of technology for the West, contemporary culture seems to provide sufficient resources for many Westerners to live within a highly technological society and to adapt to technological changes.¹³⁰

Within technology studies, this respect for contemporary culture is recognized in the links it forges with science fiction studies. Haraway’s adoption of the cyborg is a key moment in the cross-fertilization of these two disciplines.¹³¹ In law, the field of law and literature is increasingly moving away from its canonical texts and orthodox concerns with courtrooms and images of lawyers¹³² through analyzing the “culture of legality” recorded in popular texts.¹³³ An emerging element of this movement has been the discovery of science fiction by legal scholars,¹³⁴ and a realization that science fiction contributes to popular jurisprudence.¹³⁵ What remains to be explored is science fiction as a discourse on the theory of law and technology.

As identified in the circulation of the Frankenstein myth

129. FREDRIC JAMESON, POSTMODERNISM, OR, THE CULTURAL LOGIC OF LATE CAPITALISM 376 (1991).

130. As recently suggested by Turkle in recognition of the adoption of computers. Sherry Turkle, *Our Split Screens*, in COMMUNITY IN THE DIGITAL AGE 101 (Andrew Feenberg & Darin Barney eds., 2004).

131. Istvan Csicsery-Ronay, Jr., *The Cyborg and the Kitchen Sink; or The Salvation Story of No Salvation Story*, 25 SCL.-FICTION STUD. 510 (1998).

132. Austin Sarat et al., *On Film and Law: Broadening the Focus*, in LAW ON THE SCREEN 1 (Austin Sarat et al. eds., 2005).

133. WILLIAM P. MACNEIL, LEX POPULI: THE JURISPRUDENCE OF POPULAR CULTURE (2007).

134. See, e.g., Christine Corcos, Isabel Corcos & Brian Stockhoff, *Double-Take: A Second Look at Cloning, Science Fiction and Law*, 59 LA. L. REV. 1041 (1999); Christine Corcos, “I Am Not a Number I Am a Free Man!”: *Physical and Psychological Imprisonment in Science Fiction*, 25 LEGAL STUD. F. 472 (2001); Paul Joseph & Sharon Carton, *The Law of the Federation: Images of Law, Lawyers and the Legal System in “Star Trek: The Next Generation”*, 24 U. TOL. L. REV. 43 (1992); Jeffery Nesteruk, *A New Narrative for Corporate Law*, 23 LEGAL STUD. F. 281 (1999); Richard J. Peltz, *On a Wagon Train to Afghanistan: Limitations on Star Trek’s Prime Directive*, 25 U. ARK. LITTLE ROCK L. REV. 635 (2003); William Pencak, *Lyres Against the Law: Orpheus as Cyberpunk Outlaw*, 23 LEGAL STUD. F. 293 (1999).

135. William P. MacNeil, *PreCrime Never Pays! Law and Economics’ in Minority Report*, 19 CONTINUUM: J. MEDIA & CULTURAL STUD. 201 (2005).

within law and technology scholarship, metaphors with fictitious origins structure legal accounts of technology. Further, law and technology scholarship, as was shown in Reynolds, gestures towards the future when it imagines the impacts of the specific technology under the legal microscope.¹³⁶ This is a fundamental element of law and technology writing. There is a claim about “what if” technology develops in a certain way, and then evidence that such speculations are not groundless. In this law and technology claims for itself a speculative jurisdiction; that is it makes what seems at the time reasonable and justifiable claims about the future. History can later judge on the oracular quality of past exercises of the speculative jurisdiction.¹³⁷ It is science fiction that is a privileged resource in this future projecting by law of the consequences of technological change. For example I have argued elsewhere that the form and content of international space law of the 1960s and 1970s responded to imaginations and anxieties of technological future present in 1950s “Golden Age” science fiction such as Isaac Asimov and Fredrick Pohl and C. M. Kornbluth.¹³⁸ The opportunity for law and technology is that it could make this process explicit. Further, through systematically approaching science fiction as material through which being-in the world with technology can be glimpsed, not only would law and technology be reflecting on its own discursive practices, but might be able to challenge and substitute its foundational Frankenstein myth with a wider repertoire of metaphors and narratives through which to think about law and technology.¹³⁹

136. See, e.g., Barry Brown, *Human Cloning and Genetic Engineering: The Case for Proceeding Cautiously*, 65 ALB. L. REV. 649, 649–650 (2002); Lyria Bennett Moses, *Understanding Legal Responses to Technological Change: The Example of In Vitro Fertilization*, 6 MINN. J. L. SCI. & TECH. 505, 509 (2005).

137. See, e.g., Barton Beebe, *Law's Empire and the Final Frontier: Legalizing the Future in the Earlyorpus Juris Spatialis*, 108 YALE L. J. 1737 (1999). Beebe examines the exercise of the specular jurisdiction by international space lawyers during the “golden age” of space law.

138. Kieran Tranter *Terror in the Texts: Law – Technology – Future* 13 LAW & CRITIQUE 75 (2002)

139. A task I have begun. See Kieran Tranter, “Frakking Toasters” and *Jurisprudences of Technology: The Exception, the Subject and Techné in Battlestar Galactica*, 19 LAW & LITERATURE 45 (2007).

CONCLUSION

Thinking about the theory of law and technology yields a series of recognitions. There is recognition that much law and technology scholarship is structured by a particular manifestation of the Frankenstein myth that ironically casts law as technology. In this it is possible to say that law and technology already present a theoretical account of law and technology. In regarding law as technology, what is disclosed is the nomology of sovereignty, which legal theory has charted as involving law as malleable rules emanating from a sovereign that, in the extreme moment, can violently reduce humans to animals to be used and sacrificed at will. In technology studies, this juridical-political account is placed within the ontological realm through Heidegger's argument that modern Being has been given over to a mode of disclosing that involves the ordering of the world as standing reserve. It was suggested that there are two post-Heideggerian strands with technology studies. The first, tracking Heidegger closely, is the metaphysical account of technology. This leads to glum destinations of absolute technology and enslaved humanity. The second lies in appreciation of being-in the world, or a Haraway and Braidotti inspired phenomenology of technology. Two directions were offered for the phenomenology of law and technology. The first, drawing upon Latour, was a historical project of mapping the complexities of law and technology through detailed study of the networks that manifest in particular technologies and particular moments of lawmaking. The second was to appreciate the sophistication of contemporary culture in allowing a highly dynamic technological life through recognition of the current significance of science fiction to law and technology's speculative jurisdiction and to analysis science fiction, not only rendering this process transparent, but as a way of supplanting the foundational Frankenstein myth with additional metaphors and narratives.

In conclusion, this Article argues for a diverse law and technology scholarship. In particular, it suggests that contemporary law and technology scholarship grounded on the Frankenstein myth of reducing law to technology, fails to capture the diversity and complexities of law's and technology's interactions. Through considering law as technology from the perspective of legal theory and technology studies it was argued that a hybrid approach, drawing upon insights from both disciplines, suggests that phenomenological

studies, that is a focus on being-in the world, offers a way forward for the law and technology. To this end detailed historical analysis of networks or the systemic analysis of science fiction was presented as alternative methods through which to study law and technology.