TURING'S PEOPLE: PERSONHOOD, ARTIFICIAL INTELLIGENCE AND POPULAR CULTURE

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ABSTRACT

What is legal personhood? Many people understand personhood – and by extension law – through depictions in popular culture. The contemporary feature film for example provides a lens through which non-specialists (people without a background in information technology, philosophy and law) can make sense of humanoid robots and distributed artificial intelligence (AI), entities that perform as 'human'. Such an understanding is increasingly salient as AI becomes a pervasive but under-recognised aspect of daily life, and continues to evolve in its sophistication and complexity, provoking questions about rights, responsibilities and regulation regarding artificial entities that are independent rather than autonomous. The article accordingly analyses depictions of personhood in films such as Ex Machina, WarGames, Alien *and* Alien Covenant, Forbidden Planet, RoboCop *and* AI. *It suggests that popular culture has an uncertain grasp of legal personhood but provokes thought and tells us something useful about the difference between human animals, non-human animals, corporations and new artificial persons. Those differences will be legally and culturally contested in the emerging age of smart machines and governance by algorithm.*

Legal personhood is a strange creature, more omnipresent but less colourful than the creatures featured on screen in films such as *Metropolis,*[2] *Prometheus* and *Alien*

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[2] *Metropolis* (Directed by Fritz Lang, Universum Film, 1927).

Covenant,[3] *The Terminator*,[4] *Ex Machina*,[5] *RoboCop*,[6] and *Star Wars*[7] or in canonical texts such as *Frankenstein, Or The Modern Prometheus* (1818)[8] and *L'Ève future* (1886).[9]

Legal personhood is man-made, a creature of administrative convenience and social convention that specialists and non-specialists alike often take for granted.[10] It privileges some interests. It enshrines particular capacities, for example the sentience and susceptibility to suffering of human animals – the paradigmatic legal persons – rather than their non-human peers on the disadvantaged side of what rights scholar Steven Wise characterised as the thick legal wall differentiating humans from other animal species.[11] As noted below it involves a bundle of rights, duties, powers and disabilities.[12] It lacks a discrete statutory definition. It is founded on what John Dewey characterised as 'considerations popular, historical, political, moral, philosophical, metaphysical and, in connection with the latter, theological'.[13] It may be enjoyed by bloodless entities, such as corporations and the nation state, that we have created to act on behalf of individuals or communities but, unlike those humans, may exist in perpetuity outside the frame imposed by mortality and individual morality. It is not enjoyed by non-human animals, irrespective of their cognition, sociality or a susceptibility to physical injury and distress that resembles our own.

Personhood is thus not a monopoly dependent on the human genome. As yet it has not been extended to entities whose perception and responsiveness to their environment – a matter of sentience and agency, matters that we enshrine in the personhood of human

[3] *Prometheus* (Directed by Ridley Scott, Scott Free, 2012); and *Alien Covenant* (Directed by Ridley Scott, 20th Century Fox, 2017).
[4] *The Terminator* (Directed by James Cameron, Hemdale, 1984).
[5] *Ex Machina* (Directed by Alex Garland, Film4, 2014).
[6] *RoboCop* (Directed by Paul Verhoeven, Orion Pictures, 1987).
[7] *Star Wars* (Directed by George Lucas, Lucasfilm, 1977).
[8] Mary Shelley, *Frankenstein, Or The Modern Prometheus* (Lackington, Hughes, Harding, Mavor & Jones, 1818).
[9] Auguste Villiers de l'Isle-Adam, *L'Ève future* (Monnier, De Brunhoff, 1886).
[10] Roger Cotterrell, *The Sociology of Law* (Butterworths, 2nd ed, 1992) 124.
[11] Steven Wise, *Drawing the Line: Science and the Case for Animal Rights* (Basic Books, rev ed, 2003) 1.
[12] Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning* (Ashgate, 2001). See also Pierre Schlag, 'How To Do Things With Hohfeld' (2015) 78(1/2) *Law and Contemporary Problems* 185.
[13] John Dewey, 'The Historic Background of Corporate Legal Personality' (1926) 35(6) *Yale Law Journal* 655, 655.

animals – are functions of digital technology and artificial intelligence (AI) rather than flesh, blood and programming at school.[14]

When we look at humanoid robots (multi-function autonomous or even independent intelligent devices) and what is colloquially referred to as AI (multi-layered or distributed deep learning systems) we will increasingly see a reflection of ourselves: a blurred image of our capabilities and questions about our nature, our rights, our responsibilities and our self-awareness.[15] The AI depicted in many of the films in this article often have human capabilities – loyalty, insight, bravery, honesty, insight – or what uncannily appear to be those capabilities, along with a range of psychopathies that are evident in the boardrooms of corporate Australia or locations such as Trump's White House.[16]

As the final part of this article contends, that behavior should provoke thought among readers of Judith Butler. Is 'human' in some contexts a matter of performativity rather than physical form? It should also provoke thought about the serviceability of the Turing test. Turing's famous, much cited and sometimes misunderstood test for differentiating between the natural and artificial posits that if responses by an entity behind a screen to questions put by a human cannot be discerned as coming from a machine that device is intelligent.[17] Does problem solving and the manifestation of what appears to be human capabilities justify attribution of some form of legal personhood to AI alongside corporations and other entities?

14 Among introductions to AI see Mariusz Flasinski, *Introduction To Artificial Intelligence* (Springer, 2016).

15 It is axiomatic that there are varying degrees of autonomy (in other words the extent to which action by a device is determined by a direct command from an operator or rules built into the software that is the basis of that action). Many devices and services encountered within Australia in everyday day life have some sentience and intelligence (for example a geospational functionality or ability to determine creditworthiness) but none as yet are self-aware, with a consciousness resembling that of a human – 'I think, therefore I am?' – and independent problem-solving skills when faced with a uniquely new task or environment.

16 Paul Babiak, Craig S Neumann and Robert D Hare, 'Corporate Psychopathy' (2010) 28 *Behavioral Sciences and the Law* 174.

17 Alan A Turing, 'Computing machinery and intelligence' (1950) 59(236) *Mind* 433; and B Jack Copeland, 'The Turing Test' (2001) 10(4) *Minds and Machines* 519. The test is not specifically recognised in Australian law and as researchers since 1950 have noted will not necessarily address attributes such as empathy.

A *Personhood through a cinematic gaze*

In making sense of AI and by extension ourselves as actors within legal systems many people will look to depictions of AI in film rather than graduate law and philosophy seminars or the proceedings of the Association for Computing Machinery (ACM) or the Institute of Electrical & Electronics Engineers (IEEE). Cinematic depictions of AI are incoherent. That incoherence is unsurprising, given that film is a matter of entertainment rather than an exegesis of theorists such as Agamben or Schmitt concerned with 'bare life' and exclusion on the basis of arbitrary attributes such as ethno-religious affinity.[18] It is also unsurprising given that many people construe personhood as 'being human' ('acting' and 'looking' human) but do not necessarily agree on what attributes constitute a person and what are the consequences of that personhood.

Film, like law, is a way of making sense of the world. It may be a way of making sense of what law is and what law should be, a foundation of social cognition. This article explores legal personhood slantwise through the lens of popular culture: what films tell us about depictions of the glass wall between natural and artificial persons.[19] That sideways glance at personhood is novel, is timely on the 200th anniversary of the appearance of Mary Shelley's *Frankenstein* (progenitor of contemporary AI fiction such as *The Fear Index*[20] and the so-called 'Frankenstein Complex' in perceptions of AI),[21] and may provoke thought among readers accustomed to construing personhood

[18] Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life* (Daniel Heller-Roazen trans, Stanford University Press, 1998) [trans of *Homo sacer. Il potere sovrano e la nuda vita* (first published 1990)] and *The State of Exception* (Kevin Attell trans, University of Chicago Press, 2005) [trans of *Stato di Eccezione* (first published 2003)]; and Carl Schmitt, *The Concept of the Political* (George Schwab trans, University of Chicago Press, 1997) [trans of *Der Begriff des Politischen* (first published 1932)] 27 and *On the Three Types of Juristic Thought* (Joseph Bendersky trans, Praeger, 2004) [trans of *Über die Drei Arten des Rechtswisserschaflichten Denken* (first published 1934] 82. See also Leila Brännström, 'How I learned to stop worrying and use the legal argument: A critique of Giorgio Agamben's conception of law' (2008) 5 *No Foundations: An Interdisciplinary Journal of Law & Justice* 22; and Richard Bernstein, 'The Aporias of Carl Schmitt' (2011) 18(3) *Constellations* 403.

[19] Emily Dickinson, 'Tell all the Truth but tell it slant' in Ralph Franklin (ed), *The Poems of Emily Dickinson: Reading Edition* (Harvard University Press, 1999) 494.

[20] Robert Harris, *The Fear Index* (Hutchinson, 2011).

[21] Lee McCauley, 'Countering the Frankenstein Complex', Association for the Advancement of Artificial Intelligence (AAAI) spring symposium: Multidisciplinary collaboration for socially assistive robotics (2007) 42

through what is articulated in the court room and law school lecture theatre.[22] It looks at personhood prospectively rather than merely historically.[23] It may provoke questions about whether 'being human' is a matter of performativity: seeming rather than being.[24]

There is a substantial literature, in terms of both volume and insights, about the 'robot apocalypse' (notably mass unemployment attributable to workplace automation),[25] psychological phenomena such as 'uncanny valley' in human-robot interaction and robot design,[26] the regulation of 'sex bots'[27] and robot interrogators,[28] privacy risks associated with consumer uptake of devices such as robot vacuum cleaners in 'smart homes',[29] discrimination and transparency in 'machine learning' and the algorithmic

[22] Steve Greenfield, Guy Osborn and Peter Robson (eds), *Film and the law: The cinema of justice* (Bloomsbury, 2010); and Philip N Meyer, 'Visual literacy and the legal culture: Reading film as text in the Law School setting' (1993) 17 *Legal Studies Forum* 73.

[23] José Manuel Martins, 'The Robot Steps In: From Normative to Prospective Ethics' in Ferreira M Aldinhas et al (eds), *A World with Robots – Intelligent Systems, Control and Automation* (Springer, 2017) 233.

[24] The following paragraphs thus draw on theorising by figures such as Judith Butler, Kenji Yoshino, Elaine Ginsberg and Nancy Leong. See for example Judith Butler, 'Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory' (1988) 40(4) *Theatre Journal* 519; Kenji Yoshino, *Covering: The Hidden Assault on Our Civil Rights* (Random House, 2006); and Elaine Ginsberg (ed), *Passing and the Fictions of Identity* (Duke University Press, 1996).

[25] David J Gunkel, and Billy Cripe, 'Apocalypse Not, or How I Learned to Stop Worrying and Love the Machine' (2014) 11 *Kritikos* np; Carl Frey and Michael A Osborne, 'The future of employment: how susceptible are jobs to computerisation?' (2017) 114 *Technological Forecasting and Social Change* 254; David H Autor, 'Why Are There Still So Many Jobs? The History and Future of Workplace Automation' (2015) 29(3) *Journal of Economic Perspectives* 3; Andrew Berg, Edward F. Buffie, and Luis-Felipe Zanna, 'Should We Fear the Robot Revolution? (The Correct Answer is Yes)' (IMF Working Paper 18/116); and Christopher DiCarlo, 'How to Avoid a Robotic Apocalypse: A Consideration on the Future Developments of AI, Emergent Consciousness, and the Frankenstein Effect' (2016) 35(4) *IEEE Technology and Society Magazine* 56.

[26] See for example Masahiro Mori, 'The uncanny valley' in (2012) 19(2) *IEEE Robotics and Automation* 98; Angela Tinwell, *The Uncanny Valley in Games and Animation* (CRC Press, 2015) 2; Megan K Strait, Cynthia Aguillon, Virginia Contreras and Noemi Garcia, 'The Public's Perception of Humanlike Robots: Online Social Commentary Reflects an Appearance-Based Uncanny Valley, a General Fear of a "Technology Takeover", and the Unabashed Sexualization of Female-Gendered Robots' 2017 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN) Lisbon, Portugal, 1418; and Kristin E Schaefer, Jeffry K Adams, Jacquelyn Cook, Angela Bardwell-Owens and Peter A Hancock, 'The future of robotic design: Trends from the history of media representations' (2015) 23(1) *Ergonomics in design* 13.

[27] John Danaher, Brian D Earp and Anders Sandberg, 'Should we campaign against sex robots?' in John Danaher and Neil McArthur (eds), *Robot Sex: Social and Ethical Implications* (MIT Press, 2017) 47; Heidi Vella, 'Love in the robotic age [human-robot relationships]' (2017) 12(1) *Engineering & Technology* 66; and Christian Wagner, 'Sexbots: The Ethical Ramifications of Social Robotics' Dark Side' (2018) 3(4) *AI Matters* 52.

[28] Amanda McAllister, 'Stranger than Science Fiction: The Rise of AI Interrogation in the Dawn of Autonomous Robots and the Need for an Additional Protocol to the UN Convention against Torture' (2016) 101(6) *Minnesota Law Review* 2527.

[29] Tamara Denning, Cynthia Matuszek, Karl Koscher, Joshua R Smith and Tadayoshi Kohno, 'A spotlight on security and privacy risks with future household robots: attacks and lessons' *Proceedings of the 11th international conference on Ubiquitous computing* (ACM, 2009) 105; and Ugo Pagallo, 'Robots

society,[30] 'cybergeddon',[31] the ethics of using autonomous weapons,[32] the benefits of driverless cars, [33] and philosophical meditations about artificial and natural intelligence.[34]

Attitudes regarding AI are shifting.[35] Legal scholars have increasingly engaged with questions about the liability of the owners and/or designers of autonomous devices[36] and, more abstractly, whether distributed artificial intelligence (in for example the deep learning systems that determine your creditworthiness or trade autonomously in financial dark pools with little or no human oversight.) [37] should have rights, irrespective of whether it is embodied as a 'humanoid' that uncannily looks like a human.[38] There is now a rich body of work about whether artificial intelligence can

in the cloud with privacy: A new threat to data protection?' (2013) 29(5) *Computer Law & Security Review* 501.

[30] David Lehr and Paul Ohm, 'Playing with the Data: What Legal Scholars Should Learn About Machine Learning' (2017) 51 *University of California Davis Law Review* 653; and Jack M Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation' (Yale Law School Public Law Research Paper 615, 2017).

[31] Lee McCauley, 'AI Armageddon and the Three Laws of Robotics' (2007) 9(2) *Ethics and Information Technology* 153; and David J Atkinson, 'Emerging Cyber-Security Issues of Autonomy and the Psychopathology of Intelligent Machines' in *Foundations of Autonomy and Its (Cyber) Threats: From Individuals to Interdependence: Papers from the 2015 AAAI Spring Symposium, Palo Alto* (2015).

[32] Christian Enemark, *Armed drones and the ethics of war: military virtue in a post-heroic age* (Routledge, 2013); Mark Coeckelbergh, 'Drones, information technology, and distance: mapping the moral epistemology of remote fighting' (2013) 15(2) *Ethics and Information Technology* 87; and Daniel Brunstetter and Megan Braun, 'The implications of drones on the just war tradition' (2011) 25(3) *Ethics & International Affairs* 337.

[33] Hod Lipson and Melba Kurman, *Driverless: intelligent cars and the road ahead* (MIT Press, 2016).

[34] Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Harvard University Press, 1988); and Marvin Minsky, *The Society of Mind* (Simon & Schuster, 1986).

[35] Ethan Fast and Eric Horvitz, 'Long-Term Trends in the Public Perception of Artificial Intelligence', *Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence (AAAI-17)* (2017) 963.

[36] Heather Roff, 'Responsibility, liability, and lethal autonomous robots' in Fritz Allhoff, Nicholas G Evans and Adam Henschke (eds), *Routledge Handbook of Ethics and War: Just War Theory in the 21st Century* (Routledge, 2013) 352; Andrea Bertolini, 'Robots as products: the case for a realistic analysis of robotic applications and liability rules' (2013) 5(2) *Law, Innovation and Technology* 214; Ugo Pagallo, 'What Robots Want: Autonomous Machines, Codes and New Frontiers of Legal Responsibility' in Mireille Hildebrandt and Jeanne Gaakeer (eds), *Human Law and Computer Law: Comparative Perspectives* (Springer, 2013) 47; and Gary E Marchant and Rachel A Lindor, 'The coming collision between autonomous vehicles and the liability system' (2012) 52 *Santa Clara Law Review* 1321.

[37] Scott Patterson, *Dark pools: The rise of AI trading machines and the looming threat to Wall Street* (Random House, 2012); Gregory Scopino, 'Preparing Financial Regulation for the Second Machine Age: The Need for Oversight of Digital Intermediaries in the Futures Markets' (2015) 2 *Columbia Business Law Review* 439; Danielle Keats Citron and Frank Pasquale, 'The Scored Society: Due Process for Automated Predictions' (2014) 89 Washington Law Review 1; Angela Daly, *Private power, online information flows and EU law: Mind the Gap* (Bloomsbury, 2016); and Bernard Harcourt, *Against Prediction – Profiling, Policing and Punishing in an Actuarial Age* (University of Chicago Press, 2006).

[38] Gunther Teubner, 'Rights of Non-humans? Electronic Agents and Animals as New Actors in Politics and Law' (2006) 33(4) *Journal of Law and Society* 497; Ben Redan, 'Rights for robots!' (2014) 98 *Ethics Quarterly* 5; Hutan Ashrafian, 'AIonAI: A humanitarian law of artificial intelligence and robotics' (2015) 21(1) *Science and Engineering Ethics* 29; Samir Chopra, 'Rights for autonomous artificial

ever become self-aware and whether such awareness will be associated with emotions or disorders such as boredom, curiosity, anger, grief and existential despair (potentially because – just like our pets – the AI's humans grow old and die).[39]

Film scholars have written extensively about the horror, science fiction or adventure film genres, consistent with the artistic and commercial significance of those genres within film as the preeminent popular art form of the past eighty years.[40] (That cultural expression is increasingly merging with computer games, a form that embodies digital technology, is informed by the graphic novel and often features on-screen human engagement with AI characters.)[41] Their work is suggestive but they have not written about the personhood of AI and its consequences for our understandings of both AI and ourselves.

The exploration in this article adopts a somewhat different approach, looking at cinematic depictions of AI for a glimpse of human personhood and of what Australian law deems worthy of recognition as legal persons (notably corporations) and unworthy (non-human animals) . The coverage is not exhaustive: the following paragraphs do not purport to map every depiction of AI in recent feature films and to provide a detailed analysis of how film expressly or tacitly engages with the personhood of humans, other animals, states or corporations.

B *Structure*

The article has five parts.

Part I provides context by asking what is legal personhood, a status in law that is broader than a subject verb object syllogism ('who does what to whom where') and that is not restricted to live human animals. MacDorman and Cowley note 'Human beings are the

agents?' (2010) 53(8) *Communications of the ACM* 38; and Jennifer Robertson, 'Human Rights vs. Robot Rights: Forecasts from Japan' (2014) 48(4) *Critical Asian Studies* 571.

[39] The death of the human creators of AI, deemed by the humanoid David in *Alien Covenant* to be 'unworthy' of their creations, is a key theme in that movie. See *Alien Covenant* (Directed by Ridley Scott, 20th Century Fox, 2017).

[40] See for example work by figures such as Stanley Kauffmann and Lev Manovich.

[41] Jesper Juul, 'Games telling stories' (2001) 1(1) *Game studies: International Journal of Computer Game Research* 45; and Robert Alan Brookey, *Hollywood Gamers: Digital convergence in the film and video game industries* (Indiana University Press, 2010).

most paradigmatic examples of persons that we know of'.[42] Those beings are not the only persons on the cinema or television screen and in the sight of Australian law. Our 'knowing' may be inadequate. Part I discusses the significance of personhood and its manifestations in contemporary Australian law.

Part II argues that the conceptual bases and operation of law can be understood through stories rather than merely formal expressions of doctrinal principles.[43] Films and television series are stories: depictions of actors, actions, choices and consequences. Films tell stories about law, dialectically embodying and reinforcing community understandings of paradigmatic roles, rights, responsibilities and harms.

Part III considers the depiction of AI in specific films, where humanoid robots and disembodied intelligence interact with people in ways that may be supportive, threatening or merely disconcerting because either so alien or so identical to our own motivations, fears, aspirations and agency.

Part IV draws on those depictions and on the landmark test by Alan Turing, suggesting that what we see on the screen tells us something useful about the differences between human animals, non-human animals and artificial persons. What we see on screen should provoke thought about the similarities between those entities and the philosophical bases for assigning personhood to some but not others. One implication is that, at an abstract level, work by Turing and Judith Butler implies that some of the AI depicted in the films noted in Part III could indeed be deemed as having legal personhood, a change to convention about who/what is enabled to flourish on one side of Wise's thick legal wall.

Part V in conclusion accordingly suggests that film is a matter of fiction about legal fictions, that is expressions of legal personhood. We need a robust public discourse about personhood *per se* rather than about an ostensibly unique species, a public

[42] Karl F MacDorman and Stephen J Cowley, 'Long-term relationships as a benchmark for robot personhood', *ROMAN 2006 – The 15th IEEE International Symposium on Robot and Human Interactive Communication* (IEEE, 2006) 378, 383.
[43] See for example Peter Gewirtz and Paul Brooks (eds), *Law's stories: Narrative and rhetoric in the law (*Yale University Press, 1996); and Jerome Bruner, *Making Stories: Law, Literature, Lsife* (Harvard University Press, 2003).

conversation that from a foundation of principles rather than merely convenience for example recognises a personhood for non-human animals that is sufficient to foster the flourishing of any entity with sufficient sentience.

I SOMETHING RICH AND STRANGE

In Shakespeare's *The Tempest*, the sprite Ariel, a creature of intelligence and liberation, sings of transformation and new perspectives –

> Full fathom five thy father lies;
> Of his bones are coral made;
> Those are pearls that were his eyes;
> Nothing of him that doth fade,
> But doth suffer a sea-change,
> Into something rich and strange.[44]

Personhood, for a legal scholar, is indeed rich and strange. Its diversity and the conundrums associated with that richness or strangeness are not new. For many people legal personhood is synonymous with being a human, a unique entity conventionally differentiated from an 'animal'[45] and in the eyes of some viewers uniquely ordained from on high with capabilities that are reflected in a right to perpetual dominion over all creation.[46]

Natural scientists might question that certainty, on the basis that the human animal is genetically not fundamentally different from other animal species and that (as discussed below) we share many attributes – such as language, problem solving, sociability, memory, the emotions, mortality and susceptibility to pain or injury – with other creatures.[47] Legal scholars might similarly question the certainties, recalling the

[44] William Shakespeare, *The Tempest* Act I Scene ii.

[45] Statutory definitions of animals vary across the Australian jurisdictions. The *Animal Welfare Act 1992* (ACT) for example defines animal as 'a live member of a vertebrate species, including an amphibian; bird; fish; mammal (other than a human being); reptile; cephalopod; or a live crustacean intended for human consumption'. Under the *Animal Research Act 1985* (NSW) an animal is 'a vertebrate animal, and includes a mammal, bird, reptile, amphibian and fish, but does not include a human being'. The *Animal Welfare Act 1985* (SA) s 3 defines animal as 'a member of any species of the sub-phylum vertebrata except a human being or a fish'. The *Animal Health Act 1995* (Tas) s 3 characterises animal as 'any member of the animal kingdom (other than a human), whether alive or dead, including any mammal, bird, fish, shellfish and insect'. The *Prevention of Cruelty to Animals Act 1986* (Vic) s 25 defines animal as a member of a vertebrate species including any fish or amphibian; 'reptile, bird or mammal, other than any human being', decapod crustacean and cephalopod.

[46] *Genesis* 1:26.

[47] Brock Bastian, Kimberly Costello, Steve Loughnan and Gordon Hodson, 'When closing the human–animal divide expands moral concern: The importance of framing' (2012) 3(4) *Social Psychological and Personality Science* 421; Donna J Haraway, 'Anthropocene, Capitalocene, Plantationocene,

historic exclusion from legal personhood of many people over the past two millennia and the salience of legal personhood for one class of artificial person – the corporation – in contemporary Australian law.[48] That history features a differentiation between legal persons (with or without disabilities on the basis of attributes such as gender, age, bankruptcy, citizenship and intoxication) and property. It is a differentiation that we can see from at least the time of Roman taxonomists such as Gaius, that is evident in popular understandings (people have rights and responsibilities, 'animals' are things and thus property) but might be questioned through a lens of the flourishing articulated by figures such as Nussbaum,[49] Gewirth[50] and Aristotle[51] or through cinematic depictions in which AI acts – and indeed sometimes looks – the same as a human animal.

Such questioning does not mean that suffrage can or should be extended to simians, sheep or companion animals. It might however provoke thought about the principles underlying personhood and about our relationship with non-human life forms, whom we could deem as having rights on the basis of vulnerability and capabilities such as intelligence without an expectation that they will gain suffrage or be construed as owners of real/chattel property or no longer used in agriculture.[52]

Shakespeare wrote at a time when new forms of personhood were gaining acceptance,

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Chthulucene: Making Kin' (2015) 6(1) *Environmental Humanities* 159; Jessica Berg, 'Of Elephants and Embryos: A Proposed Framework For Legal Personhood' (2007) 59 *Hastings Law Journal* 369. See also Lars Reuter, 'Human is What is Born of a Human: Personhood, Rationality, and an European Convention' (2000) 25(2) *Journal of Medicine and Philosophy* 181; and Will Kymlicka and Sue Donaldson, *Zoopolis: A Political Theory of Animal Rights* (Oxford University Press, 2013).

[48] *Corporations Act 2001* (Cth) ss 119, 136 and 140; and *Salomon v Salomon & Co Ltd* [1896] UKHL 1; [1897] AC 22.

[49] Martha Nussbaum, *Women and Human Development: The Capabilities Approach* (Cambridge University Press, 2000) 69.

[50] Alan Gewirth, *Self-Fulfillment* (Princeton University Press, 1998).

[51] Aristotle, *Nicomachean Ethics* in Jonathan Barnes (ed), *The Complete Works of Aristotle II* (W D Ross trans, Princeton University Press, 1984) 1729, 1752 and 1791 and *Politics* in Jonathan Barnes (ed), *The Complete Works of Aristotle II* (B Jowett trans, Princeton University Press, 1984) 1986, 2104.

[52] See for example Dale Jamieson, *Morality's Progress: Essays on Humans, Other Animals and the Rest of Nature* (Clarendon Press, 2002) 149-151; Paola Cavalieri, *The Animal Question: Why Nonhuman Animals Deserve Human Rights* (Oxford University Press, 2001); Robert Garner, *A Theory of Justice for Animals: Animal Rights in a Nonideal World* (Oxford University Press, 2013); Will Kymlicka and Sue Donaldson, *Zoopolis: A Political Theory of Animal Rights* (Oxford University Press, 2013); and Peter Singer, *Animal Liberation* (New York Review Books, 1st ed, 1975). See however John Rawls, *A Theory of Justice* (Harvard University Press, 1st ed, 1971) 4, questioned in Tess Vickery, 'Where the Wild Things Are (Or Should Be): Rawls' Contractarian Theory of Justice and Non-Human Animal Rights' (2013) 11 *Macquarie Law Journal* 23.

with for example increasingly sophisticated conceptualisations of corporate entities, and an emerging understanding of the state as an embodiment of the nation rather than as the property of the ordained monarch.[53] Those forms have become normative, so embedded in daily life and in popular culture that they are taken as given. Contemporary Australian law draws on several centuries of pragmatic legal development that has resulted in discrete legal persons, notably corporations, that share many of the rights and responsibilities of their human peers, for example the ability to hold and acquire real property, employ human animals, sell non-human animals, be held liable for workplace injury or environmental damage, and meet obligations under the taxation regime.[54]

Those entities are artificial and accordingly sometimes characterised as legal fictions, a characterisation that uniquely privileges the human species as fundamentally more real than any other entity.[55] Legally corporations are no less valid for lacking blood or, in the words attributed to Lord Chancellor Thurlow, having 'no soul to be damned, no body to be kicked' and without the finitude that in the eyes of a legal pragmatist defines what is alive.[56] As early as 1612 a UK court commented that although personhood for a corporation – with an identity for example independent of its shareholders – is a fiction it 'is a reality for legal purposes',[57] with Dewey over three hundred years later quoting "That which is artificial is real, and not imaginary; an artificial lake is not an imaginary lake", although a century after Dewey we might see artificial swans swimming on that water.[58]

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[53] John Finnis, ''The Thing I Am': Personal Identity in Aquinas and Shakespeare' in Ellen Frankel Paul, FD Miller Jr and J Paul (eds), *Personal Identity* (Cambridge University Press, 2005) 250.

[54] Under *Corporations Act 2001* (Cth) s 124(1) for example a company has 'the legal capacity and powers of an individual both in and outside this jurisdiction'.

[55] Douglas Lind, 'The Pragmatic Value of Legal Fictions' in Maksymilian Del Mar and William Twining (eds), *Legal Fictions in Theory and Practice* (Springer, 2015) 83, 93; and Frederick Schauer, 'Legal Fictions Revisited' in Maksymilian Del Mar and William Twining (eds), *Legal Fictions in Theory and Practice* (Springer, 2015) 113, 123.

[56] John Coffee, '"No Soul to Damn: No Body to Kick": An Unscandalized Inquiry into the Problem of Corporate Punishment' (1981) 79(3) *Michigan Law Review* 386, 386. See also *Tesco Supermarkets Ltd v Nattrass* [1972] AC 153, Lord Reid at 170. Among critiques see Peter French, 'The Corporation as a Moral Person' (1979) 16(3) *American Philosophical Quarterly* 207; and Philip Pettit, 'Responsibility Incorporated' (2007) 117 *Ethics* 171.

[57] *The Case of Sutton's Hospital* (1612) 10 Rep 32b.

[58] Arthur Machen, 'Corporate Personality' (1911) 24(4) *Harvard Law Review* 253, 257 quoted in John Dewey, 'The Historic Background of Corporate Legal Personality' (1926) 35(6) *Yale Law Journal* 655, 655-656.

When we see cinematic depictions of AI we might ask whether self-aware artificial intelligence, which might have greater analytical skills than many humans and which share – or appear to share – the emotions that make us human and therefore worthy of personhood, should never be recognised as legal persons? We might also ask what it is to be human.

A *Looks like a human, talks like a human, acts like a human, is it a person?*

AI in film is likely to engage some audiences because, along with creatures such as vampires and zombies, it does not fit neatly into a taxonomy of 'us' and 'them'.[59] It may not be readily deconstructed through a heuristic such as the 'duck test' found as an expression of 'common sense' in political rhetoric, that is 'if it looks like a duck, quacks like a duck, and associates with other ducks it must be a duck'. If AI acts like a human, is it and should it be a legal person? Is personhood a consequence of performativity: seeming to be a human animal or, as with corporations, possessing attributes that for convenience and through custom we deem as justifying the non-human entity's recognition as a legal person. Those queries are addressable by asking another question: what is legal personhood?

In contemporary Australia (and in historic England) there is no discrete personhood statute or tight body of common law. There is no concise judicial encapsulation or bright line test of personhood. Personhood has not been conceptualised as a legal subdiscipline, in contrast to contract, family, tort, citizenship or intellectual property law. That is perhaps unsurprising, given the protean nature of personhood and its normativity in most legal subdisciplines. Personhood is instead a matter of diffuse statute and common law that deals with matters of the rights and responsibilities, status and obligations and disabilities of natural and artificial persons.

There is an extensive body of law for example regarding identification (and its subversion through mechanisms such as forgery), including law regarding identity cards, passports and signifiers of authority. That law complements law regarding civil

[59] Bruce Baer Arnold, 'Is the Zombie My Neighbour: The Zombie Apocalypse as a Lens for Understanding Legal Personhood' (2016) 14 *Canberra Law Review* 25.

and criminal law regarding liability for harm attributable to natural and artificial persons. Australian law assigns responsibility for the action of non-human animals and machines to the owners, operators, vendors or manufacturers of those entities. It is thus axiomatic that an errant cow, tractor, toaster, building or laptop has no standing in court and cannot for example be sued for an injury: it is not a legal person. (A ship, as a matter of convention, may however have that personhood; an expression of convenience and historical contingency rather than the peculiarity of life at sea.)

Legal personhood gives entities a particular status under law, placing them in a framework that involves rights and responsibilities.[60] Personhood is a matter of convention. Historically it has proved to be highly mutable, with for example women, slaves and members of ethno-religious minorities often regarded as neither legal persons nor deserving of personhood and when recognised as persons often precluded from flourishing through imposition of legal disabilities. We recognise some entities as persons and disregard other entities that may share attributes with our persons on the basis that we have done so in the past and are so accustomed to the demarcation that we do not engage with questions about the consequences or philosophical foundations of the wall separating persons from non-persons.

Personhood is a matter of administrative convenience rather than necessarily a matter of coherent principles found in revelation. The corporation – an artificial person that is so omnipresent in day to day life in Australia that non-specialists take its existence for granted and do not inquire about rationales – is for example a convenient way of managing risk and allocating resources. Unsurprisingly that artificial person often appears in films, sometimes – along with 'the law' – as a malevolent force that has a will beyond that of individual corporate officers/agents and that is challenged by heroes[61] in much the same way that dragons or other monsters are vanquished by stout-hearted bands of brothers (latterly with the assistance of an intrepid girl or two)[62] or

[60] Ngaire Naffine, 'Who Are Law's Persons? From Cheshire Cats To Responsible Subjects' (2003) 66(3) *Modern Law Review* 346; and Margaret Davies and Ngaire Naffine, *Are Persons Property? Legal Debates about Property and Personality* (Ashgate, 2001).

[61] Judith Grant, 'Lawyers as superheroes: The firm, the client, and the pelican brief' (1995) 30(4) *University of San Francisco Law Review* 1111; and William H Simon, 'Moral Pluck: Legal Ethics in Popular Culture' (2001) 101(2) *Columbia Law Review* 421.

[62] See for example Hope van Dyne (The Wasp) in *Ant-Man* (Directed by Peyton Reed, Marvel Studios, 2015) and *Ant-Man and The Wasp* (Directed by Peyton Reed, Marvel Studios, 2018), Elizabeth Olsen

that Arnold Schwarzenegger and Linda Hamilton deal with the murderous robot in James Cameron's *Terminator 2*:*Judgement Day*.[63]

In thinking about AI and its depiction in film it is useful to consider what makes people legal persons. What attributes are determinative?

In essence, a legal person is not unique: it is instead a member of a class of identities with identical or similar attributes, whether latent or expressed. It has some degree of sentience (perception of its environment), intelligence (problem-solving) and agency (the ability to seek individual or collective ends through decision-making and consequent action).

As a convention we regard some entities as legal persons although the sentience, intelligence and agency may be only latent. A human animal who exists in a permanently vegetative state for example is and, importantly, remains a legal person because a member of the human species. That person has legal rather than merely functional disabilities (for example is under guardianship or otherwise cannot vote) but in law is recognised as a person.[64] That recognition is a conventional and convenient legal fiction founded on the individual's membership of the class of human animals (all of whom in a liberal democratic state are legal persons and entitled to respect irrespective of legal disabilities) rather than the presence/absence of capabilities that might be evident in non-human animals or other entities. A corporation – one of the artificial persons noted above – has a status as a legal person even though it may exist only to hold assets on behalf of its shareholder/s, with its only action being periodic reporting – through a human agent or software – in accordance with corporate compliance protocols. It does not have all the rights of most humans and for example cannot vote in most elections or stand for parliament (disabilities shared with numerous members of the human species) but there is creeping acceptance that corporations might

(Scarlett Witch) and Natasha Romanoff (Black Widow) in *Avengers: Age of Ultron* (Directed by Joss Whedon, Marvel Studios, 2015)

[63] *Terminator 2: Judgement Day* (Directed by James Cameron, Carolco, 1991).

[64] See for example *Commonwealth Electoral Act 1918* (Cth) s 93(8); *Guardianship & Administration Act 1986* (Vic); *Guardianship Amendment Act 1997* (NSW); *Guardianship and Administration Act 1990* (WA); and *Guardianship and Administration Act 1993* (SA).

be gifted with human rights,[65] although lacking the problem-solving skills of a crow or the language of an African Grey Parrot.[66]

Those comments are prima facie unremarkable. They are however worth noting because sentience, rationality and agency are demonstrably not restricted to humans and from the perspective of principle, as distinct from convention, there is no inevitable and compelling restriction on recognising personhood – with legal disabilities – for non-human animals and artificial entities that are not corporations or states. Non-human animals, as noted above, have problem-solving skills that are independent of any guidance or training (aka programming) by humans. They have sentience (for example experience pain from physical injury and exhibit signs of psychiatric distress over crowding or other discomfort). They display purpose. As Jeremy Bentham commented more than a century ago, alongside advocacy for female suffrage and abolition of slavery

> The question is not, "Can they reason?" nor "Can they talk?" but "Can they suffer?".[67]

The existence of those animals is a view of a mirror, darkly, of our own.[68] They lack the physical and legal ability to independently articulate and give effect to a non-human personhood, an inability that they share with many disadvantaged human animals throughout history. Films about the 'robot apocalypse' provide a fiction, if not a forecast, of how that inability might change for an artificial intelligence in whatever form that is seen to be truly intelligent, has become pervasive in our lives (and thus normative) because of its usefulness and that has sufficient 'personality' to gain recognition as legal persons.

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[65] See in particular Marius Emberland, *The Human Rights of Companies: Exploring the Structure of ECHR Protection* (Oxford University Press, 2006); Anna Grear, 'Challenging Corporate 'Humanity': Legal Disembodiment, Embodiment and Human Rights' (2007) 7(3) *Human Rights Law Review* 511; Lyman Johnson, 'Law and Legal Theory in the History of Corporate Responsibility: Corporate Personhood' (2012) 35 *Seattle University Law Review* 1135; and Anat Scolnicov, 'Lifelike and Lifeless in Law: Do Corporations Have Human Rights?' (University of Cambridge Faculty of Law Research Paper No. 13/2013).

[66] Personhood for non-human animals is considered in Will Kymlicka and Sue Donaldson, *Zoopolis: A Political Theory of Animal Rights* (Oxford University Press, 2013); and Steven Wise, *Drawing the Line: Science and the Case for Animal Rights* (Basic Books, rev ed, 2003). Among work on the cognitive and communicative abilities of non-human animals see Irene Pepperberg, *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots* (Harvard University Press, 2002); and Duane Rumbaugh and David Washburn, *Intelligence of Apes and Other Rational Beings* (Yale University Press, 2003).

[67] Jeremy Bentham, *An introduction to the principles of morals and legislation* (Pickering, 1823) vol 2, 236.

[68] 1 *Corinthians* 13:12.

II SEEING AND DOING

Wise refers to a thick legal wall separating human animals and non-human animals. We might ask whether there is a thick glass wall separating people who are conscious of and proficient in the grammar of law, for example most readers of this article, and those people who are unfamiliar or uncomfortable with the principles and concepts that are integral to the contemporary legal system.

A contention in this article is that many people understand personhood – and by extension law – through depictions in popular culture: what they see happening, including how actions and consequences are depicted, justified and challenged or otherwise expressed as normative. Few Australians attend court proceedings; perhaps fewer make sense of what they observe in a courtroom or in the often confusing journalism on broadcast television, radio and the internet. Fewer still have law degrees and thus a strong conceptual vocabulary about what constitutes personhood and its rationales.

The contemporary feature film for example provides a cinematic lens through which non-specialists (people without a background in information technology, philosophy and law) can make sense of humanoid robots and distributed artificial intelligence.[69] Such an understanding is increasingly salient as AI becomes a pervasive but under-recognised aspect of daily life, provoking questions about rights, responsibilities and regulation.[70] To paraphrase US Supreme Court Justice Potter Stewart, many people may not be able to define personhood, but they know it when they see it.[71]

What we see in the cinema, in electronic and print journalism, and indeed on the streets or court rooms where we see police and lawyers in action, does not have to be a

[69] Laurel D Riek, Andra Adams and Peter Robinson. 'Exposure to cinematic depictions of robots and attitudes towards them' in *Proceedings of 6th ACM/IEEE International Conference on Human-Robot Interaction, Workshop on Expectations and Intuitive Human-Robot Interaction* (2011).
[70] Lee McCauley, 'AI Armageddon and the Three Laws of Robotics' (2007) 9(2) *Ethics and Information Technology* 153. See also Rachel Wurzman, David Yaden and James Giordano, 'Neuroscience fiction as Eidolá: social reflection and neuroethical obligations in depictions of neuroscience in film' (2017) 26(2) *Cambridge Quarterly of Healthcare Ethics* 292.
[71] *Jacobellis v Ohio* 378 US 184, 197 (Stewart J) (1964).

'learning experience'. For some people it may be primarily or solely a matter of entertainment without self-reflection. However, depictions of personhood in films such as *Ex Machina,*[72] *WarGames,*[73] *Forbidden Planet,*[74] *Bicentennial Man*[75] or *AI: Artificial Intelligence*[76] and film-based series such as *Westworld* – cinematic popular culture as distinct from existential meditations by auteurs such as Ingmar Bergman – tell us something useful about the difference between human animals, non-human animals and the conventionally inanimate. That lens on personhood is broader than the typology provided by Zayera Khan of responses to service robots, the unsophisticated devices many people currently encounter every day in their homes and workplaces.[77] Khan's typology centred on

> Fear of robots replacing humans in work either in domestic or industrial settings. Meaning that the (autonomous) machine replaces humans in a certain work situation.
>
> Human anguish towards technology, comparing human evolution with technological evolution and supposing that the technological evolution will outrace human evolution, implying that technology or rather artificial intelligence will proceed human intelligence.
>
> Demystifying life, where the artificial life form yearns for organic life, in order to feel and have emotions and other cognitive abilities meanwhile humans yearn for immortality by becoming machines and preserving themselves in one way or the other. [78]

III PERSONHOOD IN SILICO?

It is likely that many, perhaps most, people take human intelligence and agency for granted. Génova and Quintanilla Navarro argue that

> Western culture has developed an epistemological programme where we can truly understand only what we are able to replicate or produce, even though in ideal

[72] *Ex Machina* (Directed by Alex Garland, Film4, 2014).
[73] *WarGames* (Directed by John Badham, United Artists, 1983).
[74] *Forbidden Planet* (Directed by Fred Wilcox, Metro-Goldwyn-Mayer, 1956).
[75] *Bicentennial Man* (Directed by Chris Columbus, Touchstone Pictures, 1999).
[76] *AI: Artificial Intelligence* (Directed by Steven Spielberg, Amblin Entertainment, 2001).
[77] Zayera Khan, 'Attitudes towards intelligent service robots' *NADA Kunliga Tekniska Högskolan, Stockholm* 17 (1998), 12.
[78] Ibid.

> conditions. Therefore, understanding human natural intelligence requires, or at least is improved by, producing first artificial intelligence.[79]

They offer several caveats

> 1) Artificial does not necessarily mean non-organic.
> (2) Intelligence is not necessarily a quality exclusive of human beings; moreover, perhaps human intelligence is not the archetype of intelligence.
> (3) We cannot assume that intelligence is the key defining element of the human condition, even from a cognitive perspective.
> (4) We know and understand artificial intelligence a lot better than human natural intelligence, because we have produced the former, whilst the latter has been given to us.
> (5) Research in artificial intelligence encompasses more aspects than performing algorithms in a computational machine, such as: having emotions, perceiving the world as a totality, having awareness of oneself, having personal consciousness, having one's own desires, having the capacity of choosing between good and evil and so on.
> (6) We do not know exactly what it means being intelligent, not even in the restricted human sense; therefore, we do not know whether this sort of intelligence can be properly expressed in algorithmic terms. [80]

Cinema tacitly asks questions about what is intelligence, what is life (human or otherwise) and what is unworthy of the protections that we grant to some life but not others. Let us look at some depictions.

A *Life through an AI lens*

In Alex Garland's 2015 *Ex Machina*[81] – a bleak re-telling of the Pygmalion myth at the heart of *My Fair Lady* – the very bright, very rich and very egocentric software developer Nathan Bateman invites employee Caleb Smith to visit his residence in a

[79] Gonzalo Génova and Ignacio Quintanilla Navarro, 'Are human beings humean robots?' (2018) 30(1) *Journal of Experimental & Theoretical Artificial Intelligence* 177, 179
[80] Ibid, 179.
[81] The script is available in Alex Garland, *Ex Machina* (Faber & Faber, 2015).

primaeval forest to use 'the Turing Test' to assess a gendered humanoid Ava.[82] In a fictive world where AI may be a matter of Big Data and semiconductors rather than the teleprinters and thermionic valves envisaged by Turing (and depicted in the Turing biopic *The Imitation Game*)[83] Bateman has created a humanoid that on first sight is indistinguishable from a human, an AI that looks rather than merely acts human and that in performing 'being human' infatuates the human animal who is testing the uncannily lifelike artificial person.

Bateman has confined Ava behind a thin wall of security glass, which initially precludes touching as Smith falls in love with an intelligent machine that unbeknown to its misogynistic creator has become self-aware. All is not well in Bateman's high-tech Eden. Ava appears to have realised that a previous iteration of her existence battered itself – we should say herself, as Bateman's robots are strongly gendered – to death (cessation of functioning) against the glass wall. Ava's response is to seduce Smith into assisting her escape from captivity, having asked 'What happens to me if I fail your test?' and perceived that she will be terminated irrespective of her or Smith's performance. Ava and Kyoko, Bateman's latest sex-bot, exercise their rationality and agency by dispatching their creator.

The film ends with a wide-eyed Ava exploring the big city, having left Smith caged behind the glass like an abandoned pet mouse. She will presumably pass as a human for as long as her batteries or parts last, subject to any injury revealing that she is a creature of titanium and silicon rather than calcium and blood. In the sight of the people whom she encounters Ava will *be* a person because she looks, sounds, acts and indeed thinks like a person. In ordinary social interaction she will remain a person until her personhood is challenged through for example a non-match with a facial or fingerprint biometric database, something that she is likely to evade if she uses her intellect to appropriate some of Bateman's wealth.

[82] Alan A Turing, 'Computing machinery and intelligence' (1950) 59(236) *Mind* 433. See also Ayse Pinar Saygin, Ilyas Cicekli and Varol Akman, 'Turing test: 50 years later' (2000) 10(4) *Minds and Machines* 463; and Stevan Harnad and Peter Scherzer, 'First, scale up to the robotic Turing test, then worry about feeling' (2008) 44(2) *Artificial Intelligence in Medicine* 83.
[83] *The Imitation Game* (Directed by Morten Tyldum, Black Bear Pictures, 2014).

Audiences of *Ex Machina* might condemn Ava as a scheming, cold-blooded killer: someone who is prepared to deceive and then dispose of Smith when he is likely to impede her bid for freedom and her existential imperative to live a full life, a flourishing precluded by confinement within Bateman's glass wall. She may well have ignored Kant by treating Smith as a means to an end,[84] but in her defence might argue that exploitation was justifiable as a means of escaping from Bateman and a fate in which her existence would be ended.[85] Fans of *Thelma and Louise* might applaud Ava's feminist agency.[86] Others might say that having been made in the image of her self-consciously god-like creator she is as amoral as Bateman himself, although perhaps capable of learning to play nicely with others when not under duress. *Ex Machina* offers a dour depiction of human frailty and folly.

Does recognition as a human require acknowledgment of the moral compromises, evasions and lies that are innate aspects of the lives of human animals, the inherently 'crooked timber of humanity' that in contrast to machines is not expected to be perfect? Bateman, in an expression of the hubris common in many films with an AI theme, had commented 'There is nothing more human than the will to survive'; Ava has indeed expressed that attribute. Bateman more grandiosely proclaimed that 'To erase the line between man and machine is to obscure the line between men and gods'. From the perspective of legal personhood his creation of Ava serves to erase the wall between machine and legal person.

[84] Immanuel Kant, *Groundwork of the Metaphysics of Morals* (Mary Gregor trans, Cambridge University Press, 1997) [trans of *Grundlegung zur Metaphysik der Sitten* (first published 1785)] 14, 31.

[85] Exploitation is a poor fit with the defence in *Viro v The Queen* (1978) 141 CLR 88. In dispatching Bateman Ava might have sought to disable rather than kill him and her abandonment of Smith at the end of the film (perhaps assuming that he has enough air, food and water to survive until someone comes to investigate why Bateman has gone silent) is disrespectful if not homicidal.

[86] Brenda Cooper, '"Chick Flicks" as Feminist Texts: The Appropriation of the Male Gaze in Thelma & Louise' (2000) 23(3) *Women's Studies in Communication* 277; and David Russell, '"I'm Not Gonna Hurt You": Legal Penetrations in Thelma and Louise' (2002) 1(1) *Americana: The Journal of American Popular Culture, 1900 to Present* http://www.americanpopularculture.com/journal/articles/spring_2002/russell.htm.

B *To love is human?*

Spielberg's *AI: Artificial Intelligence*,[87] drawing on Brian Aldiss's 1969 short story 'Supertoys Last All Summer Long', depicts a post-apocalyptic world in which humanoid robots – mechas – are an unremarkable feature of social life, are not fully self-aware (but may develop awareness) and lack legal standing despite having an intelligence and emotional depth that appears to surpass that of the humans with whom they co-exist.[88]

A couple buy David, a robot boy to replace their son Martin who fell gravely ill in childhood and was placed in suspended animation. The purchase is an echo of contemporary adoption in the United States and without any guilt about exploitation of the birth mother. It is also a reflection of the purchase and abandonment of nonhuman pets every year. David will learn but as a robot will never physically grow: he will be a perpetual five year old, one who like adults readily passes for human.[89] Along with a corporation he may exist in perpetuity and indeed out-lasts – what we would otherwise characterise as outlives – his owners. He comes to love his adoptive parents, particularly his mother, and displays the other emotions we would expect of a non-disabled child of that age. He is accompanied by a robot teddy bear that appears to have a somewhat more nuanced view of the family dynamics. Alas, Martin reappears on the scene and successfully plots to exclude the robot from parental affection. David is discarded in the wild woods. As artificial intelligence with agency he sets off on a perilous quest in search of an entity that will make him human and thereby deserving – and regaining – his mother's love.

Along the way he is accompanied by his teddy-bear, Sancho Panza to David's Quixote, and is assisted by an adult mecha – a male sex-worker on the run from the law. They

[87] *AI: Artificial Intelligence* (Directed by Steven Spielberg, Amblin Entertainment, 2001). See John C Tibbetts, 'Robots Redux: AI Artificial Intelligence (2001)' (2001) 29(4) *Literature/Film Quarterly* 256.
[88] Thomas Morrissey, 'Growing Nowhere: Pinocchio Subverted in Spielberg's AI Artificial Intelligence' (2004) 45(3) *Extrapolation* 249; and William Beard, '"AI" or, The Agony of Steven Spielberg' (2005) *Cineaction* 2.
[89] Kim Surkan, ''I Want to Be a Real Boy': AI Robots, Cyborgs, and Mutants as Passing Figures in Science Fiction Film' (2004) 5(1) *Femspec* 114; Bert Olivier, 'When Robots would really be Human Simulacra: Love and the Ethical in Spielberg's AI and Proyas's I, Robot' (2008) 12(2) *Film-Philosophy* 30; and Tuomas William Manninen and Bertha Alvarez Manninen, 'David's Need for Mutual Recognition: A Social Personhood Defense of Steven Spielberg's AI Artificial Intelligence' (2016) 20(2/3) *Film-Philosophy* 339.

encounter a 'Flesh-Fair', an event in which humans delighted in injuring and destroying mechas. It is a reflection of past and contemporary cultural practice such as bull-fights, bear-baiting and cock-fights that involve the infliction of pain and death on non-human animals on the basis that subordinate species have no rights and human discontents, in a post-apocalyptic world or otherwise, can be assuaged by making someone else feel worse.

Were David an adult human we might applaud his courage, perseverance, responsibility and commitment to one he loves. Along with the adult mecha he behaves in ways that we would characterise as both human and admirable, in contrast to most of the humans who emulate F Scott Fitzgerald's characterisation of the rich as people who carelessly break things and creatures without responsibility for the consequences.[90] From the perspective of legal pragmatism the salient characteristic of mechas in AI is that they are disposable people, simulacra with apparently deeper emotions than most of the humans they encounter and with enough self-awareness to ask existential questions about their own existence.

That disposability, [91] an embodiment of the wall between human and non-human on the basis that robots (like farm animals) are both commodities and a means to an end, is a feature of other cinematic depictions. More broadly it should remind us of utopian projects last century where 'seeing like a state', in the words of James Scott, construed the sacrifice of generations by totalitarian regimes in the Soviet Union and Russia as an acceptable cost for creating 'Socialist Man' and bringing forward the communist millennium.[92]

C *Higher Ends*

Questions about internalised and external understandings of higher ends are features of films such *Alien* and *2001: A Space Odyssey*.

[90] F Scott Fitzgerald, *The Great Gatsby* (Scribner, 2004) 170.
[91] Bertram F Malle, Matthias Scheutz, Thomas Arnold, John Voiklis and Corey Cusimano, 'Sacrifice one for the good of many?: People apply different moral norms to human and robot agents' in (2015) *Proceedings of the tenth annual ACM/IEEE international conference on human-robot interaction* 117.
[92] James Scott, *Seeing Like A State: How Certain Schemes to Improve the Human Condition have Failed* (Yale University Press, 1998) 2.

In Kubrick's *2001*[93] the AI named HAL 9000, committed to a mission that has not been divulged to the human crew on the spacecraft that it manages and apparently consumed by guilt because it has accordingly not shared information with its colleagues, takes lethal action when it perceives the crew as coming ahead of its task.[94] HAL is sentient, it has purpose, it appears to have some emotional bond with the crew. It displays what would be commended in many defence personnel (and endorsed in many cinematic depictions of war): it has doubts but steadfastly adheres to its orders. Crewmember David Bowman removes HAL's higher intellectual functions in a scene where the AI is conscious – 'Dave, stop. Stop, will you? Stop, Dave. Will you stop, Dave?' – that it is progressively losing both its intellect, its personality and its ability to achieve the mission.

HAL is noteworthy because it is the most 'human' character in the film, one beset by doubts and fears, guilt, self-consciousness and what in a human would be a commendable commitment to carrying out its tasks. Its emotional life appears to be more diverse and deeper than that of the crew it eliminates or wrestles with in an existential struggle. Those humans are more robotic than the machine that performs 'person' through conversations with designer Dr Chandra or negotiations with Bowman. It, rather than Bowman, is the entity with whom we might empathise and which in its aspiration and error we might deem to be a person. Kubrick's depiction of Bowman reducing HAL to a vegetative state – an assault that if directed at a human would be addressed through the defence of necessity – is not framed in terms of law about rights or responsibilities but in cinema such framing is truly exceptional: death is typically a plot device rather than something for express contemplation about wrongs and identity.

Humanoid robots have been a feature of the 'Alien' franchise, starting with *Alien* (1979) and *Aliens* (1986). In *Alien* the humanoid Ash is believed by his fellow crew members

[93] *2001: A Spacy Odyssey* (Directed by Stanley Kubrick, Stanley Kubrick Productions, 1968).
[94] Michael Mates, 'Reading HAL: Representation and Artificial Intelligence' in Robert Kollner (ed), *Stanley Kubrick's 2001: A Space Odyssey – New Essays* (Oxford University Press, 2006) 105; and Jay H Boylan, 'Hal in "2001: A Space Odyssey": the lover sings his song' (1985) 18(4) *The Journal of Popular Culture* 53.

on the *Nostromo* to be a human.[95] They are unaware that he is a robot with undisclosed orders to bring back the alien life-form and to consider the crew 'expendable'. Ash looks like a human, moves like a human, talks persuasively like a human and acts like a human: in this instance following orders that will result in the painful death of most of the crew.[96] Along with his homicidal successor David in *Alien Covenant* he has a scientist's dispassionate interest in and respect for the alien, rather than atavistic fear of the unknown. He has the perceptiveness or good taste to say 'I can't lie to you about your chances but you have my sympathy' before he is terminated. In *Aliens*[97] the humanoid Bishop – also initially indistinguishable from his human peers in terms of behaviour and appearance – assists heroine Ellen Ripley, her associate Newt and other crew, volunteering to put them ahead of himself (in contrast to the corporate executive Burke).[98] Tellingly, he informs Ripley that her heroism was 'not bad for a human'.[99] In *Alien 3* a damaged Bishop is again assistive before, in a manifestation of self-awareness and dignity, asking to be terminated because although repairable he could never be the state-of-the-art entity that he once was.[100] The humanoid Walter in *Alien Covenant* reveals that his makers had made him less performative – in terms of gait and emotional responses – than his homicidal predecessor David, given that the uncanniness of his performance disquieted human masters who the film despicts as often less capable than their creation.[101]

D *Cowardly lions and Carl Schmitt*

George Lucas is responsible in the *Star Wars* series for one of the dominant popular images of artificial intelligence, digital blackface in the form of R2-D2 (Artoo Deetoo) and C-3PO (See Threepio), characterised by one critic as possibly 'the most interesting characters in the film'.[102] They are robots with intelligence, agency and communication

[95] *Alien* (Directed by Ridley Scott, 20th Century Fox, 1979).
[96] Mary Pharr, 'Synthetics, Humanity, and the Life Force in the *Alien* Quartet' in Gary Westfahl and George Edgar Slusser (eds), *No Cure for the Future: Disease and Medicine in Science Fiction and Fantasy* (Greenwood, 2002) 134.
[97] *Alien* (Directed by James Cameron, Brandywine Productions, 1986).
[98] Kim Edwards, ''Aliens': Locating the Monsters'' (2009) 56 *Screen Education* 103, 105-107.
[99] Ibid, 107.
[100] *Alien 3* (Directed by David Fincher, Brandywine Productions, 1992).
[101] *Alien Covenant* (Directed by Ridley Scott, 20th Century Fox, 2017).
[102] Peter Lev, 'Whose Future? "Star Wars," "Alien," and "Blade Runner"' (1998) 26(1) *Literature Film Quarterly* 30, 31.

skills (C-3PO claims to be 'fluent in over six million forms of communication').[103] They have many of the behavioural attributes of the humans in the series but in contrast to the humanoids in the *Aliens* series are readily distinguishable because of their appearance from Princess Leia, Luke Skywalker and Han Solo. Importantly they are only supporting players, with the level of personality exhibited in *The Wizard of Oz*[104] by the Cowardly Lion or Tin Man – parodies of a real person – and by manifestations in *Gone With The Wind* of racist stereotypes.[105] The story line does not encourage the casual viewer to ask whether the artificial persons should have rights and responsibilities, but the series elides such questions about protagonists such as Luke, Leia and Obi Wan Kenobi. It is only on re-viewing the films after questions have been posed that audiences might ask what is the legal framework for any of the sentient entities depicted in the series and whether we would deprive the polyvocal C-3PO of rights enjoyed by the slave-owning Jabba the Hutt.

Manifestations of AI in the *Terminator* franchise have both less and more personality than Ash, Bishop and David. The franchise is one that would delight legal philosopher Carl Schmitt, whose writings last century construed legal authority and political legitimacy as a matter of decisionism by a godlike sovereign unbound by law in an existential struggle between a community and its enemy, that is everyone who was not part of the community.[106] In the initial *Terminator*[107] film humans fight robots that are under direction of Skynet, a US Defence AI network that has sought to eradicate humanity through a nuclear war and subsequent clean-up.[108] Skynet is reminiscent of the apocalyptic AI system in *Colossus: The Forbin Project*[109]. In *Terminator 2:*

[103] Monika Wozniak, 'Future imperfect' (2014) 110 *Transfiction: Research into the realities of translation fiction* 345, 357.
[104] *The Wizard of Oz* (Directed by Victor Fleming, Metro-Goldwyn-Mayer, 1939).
[105] *Gone With The Wind* (Directed by David Selznick, Selznick International, 1939).
[106] Carl Schmitt, *The Concept of the Political* (George Schwab trans, University of Chicago Press, 1997) [trans of *Der Begriff des Politischen* (first published 1932)] 27. See further See in particular the discussion in Heinrich Meier, *The Lesson of Carl Schmitt: Four Chapters on the Distinction between Political Theology and Political Philosophy* (Marcus Brainard trans, University of Chicago Press, rev ed, 2011) [trans of *Die Lehre Carl Schmitts: Vier Kapitel zur Unterscheidung Politischer Theologie und Politischer Philosophie* (first published 2004)] 41, 43 and 187.
[107] *The Terminator* (Directed by James Cameron, Hemdale, 1984).
[108] Paul N Edwards, 'The Terminator Meets Commander Data: Cyborg Identity in the New World Order' in Paul Taylor and Saul Halton (eds), *Changing Life: Genomes, Ecologies, Bodies, Commodities* (University of Minnesota Press, 1997) 14; and Forest Pyle, 'Making cyborgs, making humans: of terminators and blade runners' in David Bell and Barbara Kennedy (eds),*The Cybercultures Reader* (Routledge, 2000) 124.
[109] *Colossus: The Forbin Project* (Directed by Stanley Chase, Universal Pictures, 1970). See Wheeler Winston Dixon, *Hollywood in Crisis, or The Collapse of the Real* (Springer, 2016) 102-103.

Judgment Day[110] resistance to the AI overlords is aided by a learning machine in the form of Arnold Schwarzenegger, defeating an equally indomitable machine opponent who is both less articulate and lacking Arnie's personality. *T-1000* look human (except when morphing into 'liquid metal'), walk like humans, talk like humans (typically with a gung-ho cadence) and seek to do what they are supposed to do. We might suspect that more viewers are cheering the Arnie's Terminator – Henry Fonda or John Wayne in silico – rather than the woman and child that he seeks to rescue.

In the *RoboCop* series the cybernetic policeman deals with an amoral corporation and government in battling robots that lack personality, are not impressively intelligent and have an instrumentality that does not go much beyond that of a toaster or robotic vacuum cleaner, but do in fact have much larger guns than any of the aforementioned appliances. Audiences might have some empathy for the police officer (centred on his treatment as a dis-respected human in a robotic carapace) but the films provide no grounds for giving personhood to his opponents which are depicted as 'mindless' violent and 'unthinking machines' that fail tests in problem solving (for example walking down stairs) and discernment (shooting the wrong people), defective machines rather than disquietingly persuasive simulacra of God's special creatures.[111] They are weakly autonomous, mere agents of a human controller alongside the drones that are currently used in anti-terrorism activity in Afghanistan or the Middle East.[112]

In contrast Sonny the robot, a protagonist in *iROBOT,*[113] dreams – or claims to dream and have emotions. He has both self-awareness and an ethical framework that he draws on to assist in the destruction of VIKI (Virtual Interactive Kinetic Intelligence) an AI that seeks to use robots to subjugate humanity in order to protect humans from themselves. (Disabling human personhood to protect the disabled or reflect 'deficiencies' is an echo of past paternalism evident in law over several centuries and

[110] *Terminator 2: Judgment Day* (Directed by James Cameron, Carolco, 1991).
[111] Laurence Tamatea, 'If robots R–US, who am I: Online 'Christian' responses to artificial intelligence' (2008) 9(2) *Culture and Religion* 141.
[112] Derek Gregory, 'From a view to a kill: Drones and late modern war' (2011) 28(7-8) *Theory, Culture & Society* 188; and Nick Jones, 'RoboCop' (2015) 8(3) *Science Fiction Film and Television* 418.
[113] *I, Robot* (Directed by Alex Proyas, Davis Entertainment, 2004).

in the film is claimed to be legitimated because it does not violate Asimov's canonical three laws of robotics which have become enshrined in popular culture.)[114]

Sonny agrees with the system's premises but, using emotion rather than a Benthamite calculus, condemns its plan as heartless. Sonny is deemed non-culpable of killing his human creator – a Frankenstein figure – on the basis that the creator sought death and that a machine lacks the personhood necessary for prosecution as a killer, in the same way that we do not prosecute snakes, spiders, sharks and wild boar.[115]

The disembodied AI in *WarGames,*[116] an electronic *homo ludens* (pace Huizinga's claim that only humans play games),[117] has the ability to end the world through mistakenly running a nuclear war. It is a rational entity that would rather be playing 'a nice game of chess' or tic tac toe with its creator Dr Falken and unlike the computer in Kubrick's *Dr Strangelove*[118] – in essence little more than a trigger for mutually assured destruction – is sufficiently intelligent to realise that the bomb is not the answer. We can conceptualise it as an entity that is autistic or as a network-based idiot savant, possessed of a frightening agency and with a mindset that resembles mutually assured destruction theorists such as Herman Kahn.[119]

E *Digital Quietism*

In *Bicentennial Man*[120] – another film that expressly engages with legal personhood, albeit as comedy – the humanoid Andrew anomalously becomes self-aware after initial

[114] Robin Murphy and David D Woods, 'Beyond Asimov: the three laws of responsible robotics' (2009) 24(4) *IEEE Intelligent Systems* 8.
[115] Jen Girgen, 'The historical and contemporary prosecution and punishment of animals' (2003) 9 *Animal Law* 97.
[116] *WarGames* (Directed by John Badham, United Artists, 1983). See also Fred Glass, 'Sign of the Times: The Computer as Character in "Tron", "War Games", and "Superman III" (1984) 38(2) *Film Quarterly* 16.
[117] Johan Huizinga, *Homo ludens: A study of the play element in culture* (R F C Hull trans, Beacon Press, 1950) [trans of *Homo Ludens: Proeve Ener Bepaling Van Het Spelelement Der Cultuur* (first published 1938)].
[118] *Dr Strangelove, or How I Learned to Stop Worrying and Love The Bomb* (Directed by Stanley Kubrick, Hawk Films, 1965).
[119] Sharon Ghamari-Tabrizi, *The Worlds of Herman Kahn* (Harvard University Press, 2006); and Barry Bruce-Briggs, *Supergenius: The Mega-Worlds of Herman Kahn* (North American Policy Press, 2001).
[120] *Bicentennial Man* (Directed by Chris Columbus, Touchstone Pictures, 1999).

rejection as a housekeeper.[121] Its owner encourages Andrew to engage in self-education in the humanities, resulting in the device both requesting modification to his face to better convey emotions and for his freedom. After reintegration with his 'family' he realises that every human he knows will eventually die, the fundamental realisation that most people experience in childhood and that is attributable in part to the development of the corporation as a time-straddling fiction. Andrew's response is to 'become human', that is to acquire prosthetic organs that will allow him to more fully experience human sensations and emotions. He falls in love with the granddaughter of his owner, who reciprocates. In the most express cinematic exploration of robot personhood Andrew unsuccessfully petitions the World Congress to recognize him as human, enabling marriage to his chosen partner.

That recognition may resonate with legal scholars who have tracked the removal in 2017 of the legal disability preventing Australians from marrying their same-sex adult partners.[122] The Congress justifies refusal on the basis of social disruption: society can tolerate an everlasting machine but immortal humans would be too confronting. Andrew exercises his agency in choosing to age alongside his partner; on their death bed the relationship is validated through marriage after Andrew is judicially recognised as human.

Personhood, in *Bicentennial Man*, is a matter of frailty, finitude and self-awareness that if the entity is sufficiently patient – a mere 200 years of struggle and self-improvement on the part of Andrew – will be rewarded. The film is a comedy but as a reflection of law reform and civil rights movements for the removal of disabilities it offers a disconcerting view of the legal person. Be patient, be resilient in the face of rejection and incomprehension, aspire at all times to modest self-improvement rather than violence or disregard of the legal order, zealously emulate the paradigmatic person (white, male, middle class, heterosexual) and after a century or so of effort you and other members of your disadvantaged group will be deemed to have the full suite of

[121] Sue Short, 'The measure of a man?: Asimov's bicentennial man, Star Trek's data, and being human' (2003) 44(2) *Extrapolation* 209.
[122] *Marriage Amendment (Definition and Religious Freedoms) Bill 2017* (Cth), which on passage amended the *Marriage **Act** 1961* (Cth).

rights and responsibilities of your fortunate peers. A critic might suggest that personhood can be deemed without such melioristic assimilation.

F *Hell is empty, and all the devils are here!*

Through the lens of popular culture a dominant image of law is that of the use of force, sometimes lethal force, in response to disregard of public order. The 'crime', 'cop' or 'noir' genres in particular centre on contestation of authority and depictions of what happens when rules are broken, with audiences on occasion being invited to cheer the rule-breakers. That cheering – an exercise in escapism – is perhaps as a surrogate for compliance in their own lives. The current HBO *Westworld* series builds on the 1973 Michael Crichton film of the same name, in which humanoid robots at a 'Wild West' and 'Samurai' role-playing venue start to misbehave, appropriating the agency which law reserves for members of the human species.[123]

In the series something has gone terribly wrong (or, if you feel an affinity with other minds that have been harmed, belatedly but bloodily right). In terms of engagement with the human customers the 1860s gunslingers, madams, retailers and other entities are, thanks to AI, indistinguishable from their Civil War and Tokugawa originals or people in our own time. They appear to have appropriate responses to danger or pleasure, they appear to think, they appear to have emotions and communicate 'just like us'. As non-humans they are objects on which the humans can play out their fantasies of murder, rape and mutilation. In the premiere one AI accordingly alerts his daughter with Ariel's 'hell is empty and all the devils are here'.[124] Unfortunately their unauthorised and unanticipated self-awareness – the binary proletariat escapes from unconsciousness and throws off its chains – results in them maiming or killing the human customers in a deliberate rather than an accidental reversal of what the humans paid to do to the humanoids. Presumably the corporate insurers are left to clean up the resulting class action and lawyers dispute the liability rules.[125]

[123] *Westworld* (Directed by Paul Lazarus, Metro-Goldwyn Mayer, 1973).
[124] William Shakespeare, *The Tempest* Act 1 Scene ii.
[125] David C Vladeck, Machines without principals: liability rules and artificial intelligence' (2014) 89(1) *Washington Law Review* 117; and Mitchell Travis and Kieran Tranter, 'Interrogating absence: The lawyer in science fiction' (2014) 21(1) *International Journal of the Legal Profession* 23.

Given that they appear to have intention, deliberation and action beyond the robot device that mechanistically cleans your floor or retrieves pallets in a warehouse should we regard them as quasi-humans or just bad machines that are wholly the responsibility of their manufacturer and the venue operator? Is their destruction permissible on the basis that they are a fundamental threat to the humans they encounter and lack the rationality (or an innate or acquired ethical framework) to be persuaded through discourse to refrain from killing people? Are they instead analogous to the members of 'the other side' (terrorists, soldiers, gangsters) in conventional crime/war films, where casualties on the other side may have personality but die because they wear the wrong uniform and allegiance or have the wrong skin colour?

IV ALL PERSONS ARE EQUAL BUT SOME MORE THAN OTHERS?

George Orwell's *Animal Farm* (filmed several times) offered a slantwise view of personhood, with the statement for all to see – on the side of a barn rather than on a cinema screen or on AustLII – that persons are formally equal but some are substantively advantaged.[126] Humans as our paradigmatic legal persons are advantaged because they make law, enforceable rules that on the basis of convenience and convention makes them more equal than other animal species. They can deem or not deem personhood for artificial persons, states, rivers,[127] forests,[128] corporations and other artificial entities.

One reading of AI in cinematic popular culture is that personhood is a matter of performativity, a concept that brings together Alan Turing and contemporary theorist Judith Butler.

[126] George Orwell, *Animal Farm: A Fairy Story (The Complete Works of George Orwell, Vol 8)* (Secker & Warburg, 1997) 90.
[127] *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ).
[128] *Te Urewera Act 2014* (NZ). See also Catherine Iorns Magallanes, 'Maori Cultural Rights in Aotearoa New Zealand: Protecting the Cosmology that Protects the Environment' (2015) 21(2) *Widener Law Review* 273; and Jacinta Ruru, 'Tühoe-Crown settlement – Te Urewera Act 2014' (2014) Oct *Maori Law Review* 16.

This article began by noting Turing's test for differentiating between the natural and artificial, a tool that is serviceable but not exhaustive and does not for example specifically address questions about rights and responsibilities. Butler questioned popular truths about gender roles and essences by arguing that gender is as much a matter of performance – the content and styles of behaviour, including communication – as it is of immutable physiological or psychological traits.[129] A female human can for example 'pass' as male by adopting signifiers of masculinity such as clothing, vocabulary, aggression and occupation.[130] Such passing – a matter of agency – has been a matter of consequence for men with a same-sex affinity over many years[131] and for people who wished to subvert discrimination based on ethno-religious affinity.[132] In online environments it is encapsulated in the famous *New Yorker* cartoon in which one canine at a keyboard advises a peer that 'on the internet no-one knows that you are a dog'.[133]

Are the AI depicted in contemporary films manifestations of performativity? Unlike 1950s science fiction films such as *Forbidden Planet*[134] or *The Day the Earth Stood Still*[135], which feature entities that are clearly electro-mechanical devices of metal and plastic, most of the robots featured in the films discussed in Part III above are humanoid. They look like humans, rather than like industrial equipment. They sound like humans. More importantly, they behave like humans. In several instances they are accordingly mistaken for humans by other protagonists in the film. That confusion is both a useful plot device and something that might provoke thought about what constitutes a human, with a consequent consideration of whether performing like a human means that the particular AI should or could be recognised as having personhood, with performativity pulling the disadvantaged entity to the advantaged side of the legal wall.

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[129] Judith Butler, 'Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory' (1988) 40(4) *Theatre Journal* 519, 520.
[130] See Dennis Cooley and Kelby Harrison (eds), *Passing/Out: Sexual Identity Veiled and Revealed* (Routledge, 2016) and more broadly Elaine Ginsberg (ed), *Passing and the Fictions of Identity* (Duke University Press, 1996).
[131] Kelby Harrison, *Sexual Deceit: The Ethics of Passing* (Lexington, 2013).
[132] See for example Elizabeth Smith-Pryor, *Property Rites: The Rhinelander Trial, Passing and the Projection of Whiteness* (University of North Carolina Press, 2009); and Laura Browder, *Slippery Characters: Ethnic Impersonators and American Identities* (University of North Carolina Press, 2000).
[133] Cartoon by Peter Steiner, *The New Yorker* (New York), 5 July 1993.
[134] *Forbidden Planet* (Directed by Fred Wilcox, Metro-Goldwyn-Mayer, 1956).
[135] *The Day the Earth Stood Still* (Directed by Julian Blaustein, 20th Century Fox, 1951).

Part I of this article asked if AI behaves like a person is it a person in the eyes of humans, corporations and the law? If your performance as a manifestation of AI is undistinguishable from that of a human with full capabilities (rather than someone whose thought processes and expression are negatively determined by immaturity/senescence, psychiatric disorder, duress, intoxication or pain) are you sufficiently 'human' to be regarded as a legal person and accordingly deemed to have some/all of the rights of the paradigmatic legal entity? The answer is no. With apologies to Butler, personhood is a matter of convention and convenience, neither of which have sufficiently changed for recognition under common or statute law. In the immediate future it will continue to be convenient for corporations, for example, to regard AI as property rather than persons.

Two critics comment

> Brief operational tests of intelligence, such as the Turing test, in which a computer is expected to pretend to be human, are both too easy and too difficult. They are too easy, because a mindless program can fool ordinary people into thinking it is human. On the other hand, they are too difficult, because a clever judge can devise questions that no computer however brilliant could answer as a human being would—namely, questions designed to tease apart its subcognitive architecture. Clearly, the Turing test, whether conducted in its original form across a teleprinter or in its more recent robotic incarnations, suffers from speciesism.[136]

From the perspective of principle we might ask a somewhat different question: should personhood be recognised for those entities that closely resemble human animals in having a mind, irrespective of their species or basis in digital technology. Could we use that question in addressing the veil of ignorance test advanced by John Rawls.[137]

If personhood is something that we deem, on an exclusive or partial basis, what foundations might we choose? MacDorman and Cowley comment that it should be founded on more than analytical skills. We might decide that it should be founded on

[136] Karl F MacDorman and Stephen J Cowley, 'Long-term relationships as a benchmark for robot personhood', *ROMAN 2006 – The 15th IEEE International Symposium on Robot and Human Interactive Communication* (IEEE, 2006) 378, 378.
[137] John Rawls, *A Theory of Justice* (Harvard University Press, 1st ed, 1971) 136.

more than the ability to alter the environment, an ability central to a succession of armageddon films such as *Colossus: The Forbin Project, The Terminator* and *Wargames*.

If we are thinking about rationales rather than mere resemblance we might consider rights. We might want the substantive respect implicit in Martha Nussbaum's capabilities that for example encompass life, livelihood, bodily integrity, leisure, use of the mind in ways protected by guarantees of freedom of expression regarding both political and artistic speech, attachments to things and people outside ourselves, freedom of religious exercise, and treatment as an entity whose worth is equal to that of others (with consequent non-discrimination on the basis of race, gender, sexual orientation, ethnicity, caste, religion and national origin).[138]

MacDorman and Cowley argue that

> If a biological body can construct itself into a person by exploiting social mechanisms, could an electromechanical body, a robot, do the same? To qualify for personhood, a robot body must be able to construct its own identity, to assume different roles, and to discriminate in forming friendships. Though all these conditions could be considered benchmarks of personhood, the most compelling benchmark, for which the above mentioned are prerequisites, is the ability to sustain long-term relationships. Long-term relationships demand that a robot continually recreate itself as it scripts its own future. This benchmark may be contrasted with those of previous research, which tend to define personhood in terms that are trivial, subjective, or based on assumptions about moral universals. Although personhood should not in principle be limited to one species, the most humanlike of robots are best equipped for reciprocal relationships with human beings.[139]

Personhood might be construed as valorising a bundle of attributes that appear in several of the films noted above, that contribute to what we think of as a good life, that are associated with the formation and maintenance of affective relationships, and that

[138] Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (Harvard University Press, 2011) 33-34.

[139] Karl F MacDorman and Stephen J Cowley, 'Long-term relationships as a benchmark for robot personhood', *ROMAN 2006 – The 15th IEEE International Symposium on Robot and Human Interactive Communication* (IEEE, 2006) 378, 378.

are not restricted to the human species. That bundle encompasses intelligence (problem solving), memory, curiosity, purpose (rather than random or autonomic responses to stimuli), sociability, internal rather than solely external restraints on behaviour, and emotions (such as affection, boredom, appetites, loneliness, loyalty, altruism). They are reflected in rights and responsibilities that serve to foster individual and collective flourishing founded on respect for the innate dignity of every entity regarded as a person.

V CONCLUSION

Movies are fictions. They are fictions that involve legal personhood, a status that is historically mutable. The humanoid robots and distributed artificial intelligence depicted in Part III of this article remain fictions – entertainments and speculations rather than realities. That is however likely to change. [140]

Chopra and White comment that

> [T]he granting of legal personality is a decision to grant an entity a bundle of rights and concomitant obligations. It is the nature of the rights and duties granted and the agent's abilities that prompt such a decision, not the physical makeup, internal constitution or other ineffable attributes of the entity. That some of these rights and duties could follow from the fact that its physical constitution enabled particular powers, capacities, and abilities is not directly relevant to the discussion. What matters are the entities' abilities, and which rights and duties we want to assign. It may be the move from the status of legal agent without full legal personality to one with legal personality would present itself as the logical outcome of the increasing responsibility artificial agents would be accorded as their place in the legal system is cemented and as they acquire the status of genuine objects of the law. When that happens, the debate over their moral standing will already have advanced to, or beyond the point

[140] Céline Ray, Francesco Mondada and Roland Siegwart. 'What do people expect from robots?' in *Intelligent Robots and Systems, 2008*: *IEEE/RSJ International Conference on Intelligent Robots and Systems (*IEEE, 2008) 3816, 3821; and Sarah Kriz, Toni D Ferro, Pallavi Damera and John R Porter III, 'Fictional Robots as a Data Source in HRI Research: Exploring the Link between Science Fiction and Interactional Expectations' 19th IEEE International Symposium on Robot and Human Interactive Communication, Principe di Piemonte - Viareggio, Italy, Sept. 12-15, 2010

> that the debates over the moral standing of entities like corporations, collectivities, groups and the like have already reached.[141]

As a society we push the limits of technology forward with an ever-gaining momentum. Law regarding personhood limps behind, advancing more sporadically. Contestation about who (or what) is sufficiently a person is evident in the episodic removal of disabilities that inhibit or preclude flourishing, with law reform dialectically shaping and shaped by claims by interest groups and changing social values.

Film serves to influence those values. Fictions about AI offer guidance about how we construe personhood and life. The fictions do not provide a coherent template for what is/is not a legal person. The absence of such a template is not restricted to fictions about entities that perform (and in some instances look) 'human', in other words are a blurred reflection of the human characters in those films. The feature film provides entertainment and on occasion illustrations of good or evil but typically does not engage with legal or philosophical rationales and tests regarding the personhood of human animals, their non-human animal peers and corporations. What it may do instead is provoke questions about why we valorise the human species and what attributes necessarily differentiate people from other entities.

We are fast approaching a moment when humanity will give birth to what we can regard as a new form of life: artificial life, but life, never the less. If a manifestation of AI can reason, can show self-awareness and have empathy with others, then it has what we would otherwise characterise as life. It is more alive and more worthy of legal recognition than Thurlow's soul-less corporation, a fiction that resembles a robot vacuum cleaner or lawn mower. To quote *Star Trek*'s Captain Picard about the humanoid named Data –

> A single Data, and forgive me, Commander, is a curiosity. A wonder, even. But thousands of Datas. Isn't that becoming a race? And won't we be judged by how we treat that race?[142]

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[141] Samir Chopra and Laurence F White, *A Legal Theory for Autonomous Artificial Agents* (University of Michigan Press, 2011) 155.

[142] Measure of Man – Star Trek: The Next Generation, 1989, [TV programme] CBS: Gene Rodenberry. See further George Wright, 'The Pale Cast of Thought: On the Legal Status of Sophisticated Androids' (2001) 25 *Legal Studies Forum* 297.

That question should disquiet us, rather than be swiftly dismissed, given that as noted above cohorts of human animals – women, apostates and heretics, slaves, people with a stigmatised ethno-religious affinity – have traditionally been denied full legal personhood on the basis that their grasp of reason was tenuous, they were emotionally labile and physically vulnerable, or merely a valuable commodity whose exploitation would be inhibited by recognition of personhood.

From the perspective of how law has historically treated humans who were deemed to be less than equal (or indeed not to be legal persons), we might conclude that future generations both biological and technological will judge us on how we treat this new life in its infancy. We need to move beyond film to a legally informed and robust public discourse about personhood, one that from a foundation of principles rather than merely convenience for example recognises a personhood for AI and for non-human animals that is sufficient to foster the flourishing of any entity with sufficient sentience.

As long ago as 1964 Hilary Putnam commented that

> it is entirely possible that robots will one day exist, and argue 'we are conscious!' In that event, what are today only philosophical prejudices of a traditional anthropocentric and mentalistic kind would all too likely develop into conservative political attitudes. But fortunately, we today have the advantage of being able to discuss this problem disinterestedly, and a little more chance, therefore, of arriving at the correct answer.[143]

One conclusion from the preceding paragraphs is suggests that we need a robust public discourse about personhood *per se*, an informed discourse that from a foundation of principles rather than merely convenience for example recognises a personhood for non-human animals that is sufficient to foster the flourishing of any entity with sufficient sentience.

[143] Hilary Putnam, 'Robots: Machines or Artificially Created Life?' (1964) 61(21) *The Journal of Philosophy* 668, 678. See also William D Smart and Neil M Richards, 'How the law will think about robots (and why you should care)' in *2014 IEEE Workshop on Advanced Robotics and its Social Impacts (ARSO)* (2014) 5.

A further conclusion is that it is useful to ask why legal fictions exist and what forms they take. Why for example are corporations more fictive than human beings? Is a self-aware robot necessarily less of a person than a corporation? Something that is properly only construed as property?

A final conclusion is that when we look into the cinematic mirror we might discern that we are carbon-based (and thus somewhat frail, often irrational and frequently unpleasant) machines exploiting artificial persons and other carbon-based species.

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