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## PERSONHOOD FOR SYNTHETIC BEINGS: LEGAL PARAMETERS AND CONSEQUENCES OF THE DAWN OF HUMANLIKE ARTIFICIAL INTELLIGENCE

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## **PERSONHOOD FOR SYNTHETIC BEINGS: LEGAL PARAMETERS AND CONSEQUENCES OF THE DAWN OF HUMANLIKE ARTIFICIAL INTELLIGENCE**

*By Daniel S. Osborne<sup>1</sup>*

*There is a growing interest in Artificial Intelligence in tech hubs like Silicon Valley and in the world at large that is finally matching the ambition and creativity that movies and media have been producing for a very long time. This paper takes that cultural interest and economic investment to its logical conclusion and assumes that a humanlike Artificial Intelligence, or synthetic person, can and will be created in the near future. Then it considers what the law should do about that creation. Specifically, this paper argues that a test should be developed for whether a synthetic person can be granted personhood under the law before such test is needed. The tenets, if not the specifics, of such a test are outlined here that provide for a synthetic person that is intelligent, social, self-conscious, and individualized.*

*But that is only half the problem. If a synthetic person can be created, one that passes a pre-determined test that allows it to access legal standing, to what sorts of rights and responsibilities does it have access? In light of the kind of synthetic person that could pass the test, four potential outcomes for rights for a synthetic person are addressed ranging from none to a full suite of human civil rights.*

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## INTRODUCTION

If popular culture is to be believed, the dawn of an age of robots is an inevitable one.<sup>2</sup> As a trope or theme in popular culture, the rise of intelligent mechanical beings, particularly robots, has been remarkably enduring and diverse. In most of these examples, be they happy coexistence, like the adorable bickering-couple-turned-heroes duo of R2-D2 and C-3PO in *Star Wars*;<sup>3</sup> horrific, post-apocalyptic war against humanity, courtesy of *The Matrix* and the future as depicted in *Terminator* and its progeny;<sup>4</sup> or bewildering gifts of robotic maids in *Rocky IV*;<sup>5</sup> the relationship between man and machine is assumed or settled. Whether for good or ill, it is rare that the development of the relationship between man and machine is fully depicted.<sup>6</sup> The before is typically assumed to be the present reality of the audience engaging the piece of pop culture and the after is the world depicted in the piece itself.<sup>7</sup> The story that occurs in the middle, the transition from a world

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<sup>2</sup> See Erik Brynjolfsson & Andrew McAfee, *The Dawn of the Age of Artificial Intelligence*, THE ATLANTIC (Feb. 14, 2014), <https://www.theatlantic.com/business/archive/2014/02/the-dawn-of-the-age-of-artificial-intelligence/283730/> [<https://perma.cc/YHN7-X7KX>].

<sup>3</sup> STAR WARS (Lucasfilm, Ltd. 1977).

<sup>4</sup> THE MATRIX (Matrix Films Pty Ltd. 1999); THE TERMINATOR (Hemdale, Productions 1984); TERMINATOR 2: JUDGMENT DAY (Carolco Pictures, Pacific Western Productions, and Lightstorm Entm't 1991); TERMINATOR 3: RISE OF THE MACHINES (Intermedia Films 2003); TERMINATOR SALVATION (The Halcyon Co. 2009); TERMINATOR GENISYS (Paramount Pictures and Skydance Productions 2015).

<sup>5</sup> ROCKY IV (United Artists Corp. 1985).

<sup>6</sup> A very notable exception is the universe as depicted in the *Mass Effect* trilogy. The series of video games examines organic-synthetic conflict through multiple stages. One alien race is attempting to win back their planet from their robotic creations in an overwhelming Israel-Palestine metaphor; depending on the player's choices, this can even resolve peacefully. One particular synthetic, a starship's onboard AI, comes to terms with her coming alive and falling in love. All the while, the primary conflict of the series involves a war against a race of synthetics seeking to eradicate all intelligent organic life in the galaxy. See MASS EFFECT (Electronic Arts 2007); MASS EFFECT 2 (Electronic Arts 2010); MASS EFFECT 3 (Electronic Arts 2012); see also HER (Annapurna Pictures 2013); EX MACHINA (Film 4 Productions and DNA Films 2014).

<sup>7</sup> See THE MATRIX, *supra* note 4; see also THE TERMINATOR, *supra* note 4. These films even make this explicit, either by directly referencing the date of the film's release (the ship on which the protagonists in *The Matrix* live is shown to have been built in the year of the film's release, 1999) or by time travel (the eponymous robot in *The Terminator* comes back to the present day to kill Sarah Connor for her part in future resistance).

without sentient machines to a world with them, is much less frequently addressed and is most likely to be explained in a few lines of exposition rather than delved into at length.<sup>8</sup>

However, this shift in realities, from a world where humans are the only known reasoning beings on our planet to sharing that mantle, is a matter of great importance and it is not a shift the law can afford to ignore. For starters, a recent study found that 41% of Americans somewhat or strongly support its continued development and 31% support or strongly support the development of high-level machine intelligence, perhaps of the sort that can rival humans.<sup>9</sup> Beyond that, 82% of Americans believe that robots and/or AI should be carefully managed.<sup>10</sup> A legal system that has procedures for handling artificial beings could guide the course of future research in a direction that society would find acceptable. If a consensus, or something like it, can be reached regarding artificial beings and their status in society then individuals at the forefront of technology and design know the target at which they can aim. Second, the struggle of minority and marginalized individuals to be recognized as full-fledged persons with rights is a struggle that has been waged regrettably recently and in fact is ongoing.<sup>11</sup> African-Americans, women, and members of the LGBTQ community have had to endure humiliating and dehumanizing laws and regulations designed to reduce their status to second-class or lower and have had to organize and self-advocate to be recognized as persons entitled to equal rights.<sup>12</sup> The policy-makers of the 21<sup>st</sup> century would be wise to learn the lessons gleaned from these 19<sup>th</sup> and 20<sup>th</sup> century struggles.<sup>13</sup> Lastly, a framework for addressing this issue should be established in the hopes of avoiding future conflict. It is true that some speculative fiction creators have suggested that conflict between humans and robots as natural and inevitable, but others have set up very

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<sup>8</sup> *Id.*

<sup>9</sup> Baobao Zhang & Allan Dafoe, *Artificial Intelligence: American Attitudes and Trends*, UK: CENTER FOR THE GOVERNANCE OF AI, FUTURE OF HUMAN. INST., UNIV. OF OXFORD 1, 3–4 (Jan. 2019), [https://governanceai.github.io/US-Public-Opinion-Report-Jan-2019/us\\_public\\_opinion\\_report\\_jan\\_2019.pdf](https://governanceai.github.io/US-Public-Opinion-Report-Jan-2019/us_public_opinion_report_jan_2019.pdf) [https://perma.cc/R7B3-DBB7].

<sup>10</sup> *Id.* at 3.

<sup>11</sup> See *Obergefell v. Hodges*, 576 U.S. 644 (2015).

<sup>12</sup> See *United States v. Windsor*, 133 S. Ct. 2675 (2013).

<sup>13</sup> To be sure, the struggle for equal rights for homosexual persons has, very regrettably, carried into the 21<sup>st</sup> century, but with recent Supreme Court decisions, perhaps that struggle could draw largely to a close before the third decade of the 21<sup>st</sup> century. See *Obergefell*, *supra* note 11, at 2.

different versions of the relationship.<sup>14</sup> Even in some of those visions of future conflict, the conflict is potentially avoidable, perhaps by the granting of equal rights and protection under the laws.<sup>15</sup> All of this is, of course, speculative, but the upside of some forethought is the potential to create a peaceful future, while the costs of ignoring the issue could include destruction.

The future of artificial beings is amorphous; no one can be entirely sure of what the next stage of development will look like. This amorphous quality has led to lexicographic confusion about what these artificial beings should be called. The kinds of entities discussed have been given a number of names by writers and thinkers over time: robots,<sup>16</sup> androids,<sup>17</sup> machines,<sup>18</sup> artificial intelligence(s),<sup>19</sup> avatars,<sup>20</sup> etc. Each of these runs the risk of being too specific. For example, while science fiction writer Isaac Asimov's preferred term, "robots," is more than adequate for his vision of artificial beings, the specific term "robot" draws to mind an image that precludes other kinds of artificial beings.<sup>21</sup> A highly intelligent operating system or a self-conscious network of computers would completely confound the classic connotation of "robot."<sup>22</sup> Instead, a unified term that could encompass any of these subsets is preferable; a definition that can cover clunking and whirring robots, the version of Siri or Alexa that Silicon Valley will roll out in ten generations, and a networked intelligence is needed.<sup>23</sup> "Synthetic" will serve, for our purposes, as the compromise term.<sup>24</sup> Synthetic has the benefits of inclusivity, being a conceptual and linguistic binary to organic, and lacking the significant cultural baggage of some of the other entries.<sup>25</sup>

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<sup>14</sup> See STAR WARS, *supra* note 3.

<sup>15</sup> See THE ANIMATRIX (Village Roadshow Pictures, Silver Pictures, Square Pictures, Studio 4°C, Madhouse and DNA Productions 2003); see also MASS EFFECT 3, *supra* note 6.

<sup>16</sup> KAREL CAPEK, R.U.R. (1920).

<sup>17</sup> PHILIP K. DICK, DO ANDROIDS DREAM OF ELECTRIC SHEEP? (1968).

<sup>18</sup> THE MATRIX, *supra* note 4.

<sup>19</sup> MASS EFFECT 2, *supra* note 6.

<sup>20</sup> Woodrow Barfield, *Intellectual Property Rights in Virtual Environments: Considering the Rights of Owners, Programmers and Virtual Avatars*, 39 AKRON L. REV. 649, 650 (2006).

<sup>21</sup> ISAAC ASIMOV, I, ROBOT (1950).

<sup>22</sup> HER, *supra* note 6.

<sup>23</sup> See *id.*

<sup>24</sup> As in "synthetic being," as opposed to a carbon-based "organic being" like a human. See MASS EFFECT, *supra* note 6.

<sup>25</sup> In addition, "synthetic" is of a less derogatory quality than the commonly-used "artificial."

As a final note, this paper advances no assurances of synthetics as a coming fact of life. As mentioned, speculative fiction and certain genres of popular culture seem to take the rise of synthetics as a given, but speculative fiction has also been promising flying cars for some time, and nothing has come of these promises.<sup>26</sup> There are thinkers and futurists who are entirely convinced of the certainty of the rise of synthetics.<sup>27</sup> There are also individuals who are equally convinced that such things are impossible and best left to fiction.<sup>28</sup> It is possible that none of this will come to pass and that the skeptics of Artificial General Intelligence could be entirely correct. However, it may not be in the country's best interests to close its eyes and hope this never comes about. What this paper does seek is to (1) establish a cognizable test by which an artificial being can be recognized as a synthetic person and (2) discuss and advocate for a robust set of rights for these persons.

## I. THE TEST

In order to be considered a person under the law, a synthetic must pass some understandable test.<sup>29</sup> Outside of the realm of legal personhood, there are already tests meant to evaluate synthetics and the proximity of their capacity to humanity's.<sup>30</sup> As covered below, most of these existing tests evaluate the intelligence of the synthetic life. Though this is a necessary part of the larger test for personhood,

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<sup>26</sup> THE JETSONS (Hanna-Barbera Productions 1962) (*The Jetsons* serves at a perfect example. Set in 2062, the Jetson family had both a flying car and a sentient robot maid. Strangely, Rosie, the robotic maid, has become dramatically more probable seeming than their private spaceship with an engine that makes that iconic puttering sound.)

<sup>27</sup> See RAY KURZWEIL, *THE AGE OF INTELLIGENT MACHINES* (1990).

<sup>28</sup> See Luciano Floridi et al., *Turing's Imitation Game: Still an Impossible Challenge for All Machines and Some Judges—An Evaluation of the 2008 Loebner Contest*, 19 MINDS & MACHINES 145, 149 (2009), <https://www.researchgate.net/publication/235223778> [<https://perma.cc/A8CS-9N73?type=image>] (“Although we might never be able to build truly intelligent machines—as we suspect...”).

<sup>29</sup> F. Patrick Hubbard, *“Do Androids Dream?”: Personhood and Intelligent Artifacts*, 83 TEMP. L. REV. 405, 419 (2011) (“Regardless of the nature of a challenge to human uniqueness, addressing the challenge will require a standard of the attributes and capabilities that a challenger must satisfy in order to be the equivalent of a human in terms of personhood.”). [<https://perma.cc/4GS6-YQMZ>].

<sup>30</sup> Joshua Batson, *Forget the Turing Test: Here's How We Could Actually Measure AI*, WIRED (June 12, 2014, 6:30 AM), <https://www.wired.com/2014/06/beyond-the-turing-test/> (examples of these tests include tests for facial recognition, audio interpretation, image processing, and language comprehension, among others.).

intelligence cannot be the only prong, just as the human experience is not predicated solely on IQ or grade point average.

For the purposes of recognizing legal personhood, a synthetic person is a non-organic unit displaying intelligence, social interactivity, self-consciousness, and substantive personality.

A. *A Non-Organic Unit*

From the outset, this issue is fraught with potential speciesism.<sup>31</sup> The first example of this is what a “non-organic unit” means. When determining whether a human is a person, society and the law look to the boundaries of the body, the limitations of that physical form, and the mental capacity housed in that body to determine whether it is a person. For example, individuals with chimerism, a rare genetic disorder which results in one body having in it two or more different sets of DNA, are counted as only one person, since there is only one body and one mind at play.<sup>32</sup> In the same way, individuals suffering from dissociative personality disorder are also treated as only one person.<sup>33</sup> Though dissociative personality disorder results in what presents as more than one mind, because the multiple minds occur in the same body and arise from the same brain makes for only one person.<sup>34</sup> Roughly speaking, the rule is one person per body, and it is relatively simple.<sup>35</sup>

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<sup>31</sup> See Hubbard, *supra* note 29, at 430.

<sup>32</sup> DAVID L. FAIGMAN, ET AL., Special Topics—Miscellaneous, MOD. SCI. EVIDENCE § 31:37 (2013-2014 Edition) (citing to James R. Lupski, Genome Mosaicism—One Human, Multiple Genomes, 341 (6144) SCIENCE 358 (2013)).

<sup>33</sup> See *State v. Grimsley*, Ohio App., 444 N.E.2d 1071, 1075–76 (1982) (“There was only one person driving the car and only one person accused of drunken driving. It is immaterial whether she was in one state of consciousness or another, so long as in the personality then controlling her behavior, she was conscious and her actions were a product of her own volition.”). It would be incorrect to say that, in a criminal context, it may not be possible for a person with dissociative personality disorder to successfully plead insanity, but it would be incorrect to assert that the personalities are distinct people. See Felicia G. Rubenstein, *Committing Crimes While Experiencing A True Dissociative State: The Multiple Personality Defense and Appropriate Criminal Responsibility*, 38 WAYNE L. REV. 353, 353–54 (1991).

<sup>34</sup> *Grimsley*, 444 N.E.2d at 1075–76.

<sup>35</sup> Except, of course, when it is not simple. See *Roe v. Wade*, 93 S. Ct. 705 (1973), *modified by*, *Planned Parenthood of Southeastern Pennsylvania v. Casey*, 112 S. Ct. 2791 (1992).

For synthetics, it is not so straightforward; the relationship between mind and body works differently for computers than it does for humans. Here are three examples: first, even now, it is entirely possible to run two or more separate operating systems, even on older machines; two separate “computers” running off of a single hardware construct.<sup>36</sup> Though both run off a single hardware interface and are manipulated by the same keyboard and mouse, for all intents and purposes, the two are actually separate computers.<sup>37</sup> These two separate software computers can even be dramatically different; one, for instance, could run off of one company’s operating system while the other runs off of a direct competitor.<sup>38</sup> This is analogous to the popular, if incomplete and reductive, conception of dissociative personality disorder: two or more mental constructs cohabiting one physical entity.<sup>39</sup> Second, one synthetic program could operate or control more than one hardware platform.<sup>40</sup> Outside of perhaps hypnosis, this has no organic parallel. Third, the operating system and software platforms can be transferred evenly and cleanly from one physical machine to another.<sup>41</sup> Settings, files, programs, and other data can be seamlessly transferred from one machine to another, in the case of hardware failure or something similar in the first hardware.<sup>42</sup> This would be akin to a human transferring her mind, memories, experiences, and knowledge to a new body. This, like mind control, is currently fiction.

Because parallels to the human experience fall flat in the face of these technological challenges, synthetics should be evaluated on their own terms. For a definition of “unit” it is better to look toward

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<sup>36</sup> Whitson Gordon, *How to Run Mac OS X Inside Windows Using VirtualBox*, GIZMODO (Aug. 28, 2012, 11:59 AM), <https://io9.gizmodo.com/how-to-run-mac-os-x-inside-windows-using-virtualbox-5938332> [<https://perma.cc/LJ8P-WBNE>].

<sup>37</sup> See MASS EFFECT 2, *supra* note 6 (One of the characters, Legion, is a synthetic comprised of one hardware platform containing over a thousand individual, self-aware software programs.).

<sup>38</sup> Gordon, *supra* note 36 (Apple OS X and Microsoft Windows running simultaneously on the same machine).

<sup>39</sup> See Grimsley, 444 N.E.2d at 1075–76.

<sup>40</sup> See MASS EFFECT 2, *supra* note 6 (One of the groups of synthetic beings called “Geth” function on the basis of “consensus.” Though the community is comprised of a number of individuals, each capable of independent thought and reasoning, they act as a collective hive mind and require consensus among members before a certain route can be taken.).

<sup>41</sup> Christopher Breen, *Move Data from an Old Mac to a New Mac*, MACWORLD (Sept. 21, 2011, 8:20 AM), <https://www.macworld.com/article/1162154/move-data-from-an-old-mac-to-a-new-mac.html> [<https://perma.cc/C47L-K8FT>].

<sup>42</sup> *Id.*

another prong of this test: substantive personality.<sup>43</sup> If the synthetic can meet those criteria, then its status as a “unit” should be assumed.

But this prong is more than a tautology. Though it does not add a potential burden for synthetics, it serves another critical purpose: preserving status quo for organic personhood. As some have expressed concern, tests designed to allow synthetics to achieve personhood frequently run the risk of excluding subsets of humanity.<sup>44</sup> Any test that seeks to expand the bounds of personhood but takes away the established personhood of others cannot be tolerated. But setting up categorical distinctions between organic and synthetic individuals becomes a tolerable way to defend the personhood of defenseless humans.

### B. Intelligence

As noted above, intelligence is the most popularly discussed aspect of synthetic personhood.<sup>45</sup> But what do we mean by intelligence? If it is a question of brute force computing power, humanity was surely outstripped years ago.<sup>46</sup> Services are free to the public that allow for on-the-spot calculations of difficult puzzles requiring not only a strong mathematic ability, but also expansive, detailed, and even trivial knowledge about the world.<sup>47</sup> An Internet-

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<sup>43</sup> See *infra* Part I.E.

<sup>44</sup> Hubbard, *supra* note 29, at 413 (“Human personhood often involves a matter of degree because some humans, like children and adults who are mentally or psychologically dysfunctional, lack the capacity to understand and exercise autonomy. Despite this lack of capacity, we grant these humans certain rights of personhood. For example, they can own property, though someone must exercise their property rights on their behalf. In addition, they cannot be owned or sold, and it is murder to kill them intentionally.”).

<sup>45</sup> *Talking to Machines*, RADIOLAB (May 30, 2011), <https://www.wnycstudios.org/podcasts/radiolab/episodes/137407-talking-to-machines>.

<sup>46</sup> Terry Walby, *Why the Turing Test Is a Flawed Benchmark*, WIRED (June 19, 2012, 2:00 PM), <https://www.wired.com/2012/06/flawed-turing-test/> [<https://perma.cc/5QSU-44LN>] (“Take today’s autonomic management systems, for example. These expert systems have the capability to interpret and correlate myriad simultaneous events. This includes “technical” events such as monitors, tests, probes and analyzers; but it also includes human input, even natural language interaction, in the form of speech, email or instant messages. The systems have the capability to calculate in milliseconds, based on those events a series of probabilities and how to react to them. And when they react, they have the capability to execute multiple simultaneous tasks at once, each time using the result of an action to inform the next.”).

<sup>47</sup> See WOLFRAMALPHA, wolframalpha.com (last visited Feb. 28, 2021); see also Walter Hickey, *32 Tricks You can do With Wolfram Alpha, The Most*

connected device or service has an especially powerful computing ability that puts humanity's greatest geniuses to shame.<sup>48</sup> But no one would argue that the ability to do arithmetic or compete on Jeopardy! is the full measure of human intelligence.

So intelligence must mean more than simply the ability to make calculations or play games. Instead, the intelligence displayed by a synthetic must be more rounded and nuanced to more closely mirror the kind of intelligence humans display, an intelligence that is capable of navigating multiple, discrete tasks and demands, often simultaneously.<sup>49</sup> The goal is not to create an artificial human, but rather to instill within a synthetic the capacity needed to integrate with human society. The intelligences must be of three distinct categories: verbal, adaptive, and moral.

### 1. Verbal Intelligence

Though it has its critics, it is nearly impossible to discuss intelligence in a synthetic without talking about the Turing Test.<sup>50</sup> Alan Turing's eponymous test is a juggernaut in classic examinations of artificial intelligence.<sup>51</sup> Oversimplified, the Turing Test ("TT") requires a human judge to sit in a room with computer screen and keyboard in front of her.<sup>52</sup> The screen has a chat or instant message interface through which the human communicates with two different partners: one human and one machine.<sup>53</sup> The judge then must determine

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*Useful Site in The History of The Internet*, BUSINESS INSIDER (July 9, 2013, 3:25 AM), <https://www.businessinsider.in/32-Tricks-You-Can-Do-With-Wolfram-Alpha-The-Most-Useful-Site-In-The-History-Of-The-Internet/articleshow/21056630.cms> [<https://perma.cc/VQL9-9TG4>] (the article shows that Wolfram Alpha can calculate nutrition facts for foods and recipes, compare corporate stock values, investments, energy price trends, etc.).

<sup>48</sup> Walby, *supra* note 46.

<sup>49</sup> *Id.* It is a repeated point of contention among apologists for synthetics that it is flatly unfair to keep trying to make artificial intelligence exactly mirror human intelligence. However, given that proto-synthetics are made by man under man's schema of intelligence and because their development is still in its most nascent stages, synthetics will be expected to meet on a more human playing field.

<sup>50</sup> Ayse Pinar Saygin et al., *Turing Test: 50 Years Later*, 10 MINDS AND MACHINES 463, 463 (2000), [https://www.researchgate.net/publication/2435828\\_Turing\\_Test\\_50\\_Years\\_Later](https://www.researchgate.net/publication/2435828_Turing_Test_50_Years_Later) [<https://perma.cc/MHK5-6BN4>].

<sup>51</sup> *Id.* ("Turing's paper has been considered to represent the 'beginning' of artificial intelligence (AI) and the TT has been considered its ultimate goal.").

<sup>52</sup> *Id.* at 465–66.

<sup>53</sup> *Id.*

which of her partners is a computer and which is a human; if the computer can pass for human one-third of the time, then it has passed the TT.<sup>54</sup>

There are a number of criticisms raised against the TT.<sup>55</sup> One of the most enduring, John Searle's "Chinese Room" problem, attempts to undercut Turing's basic premise: that conversational aptitude could even represent intelligence.<sup>56</sup> In the Chinese Room, a man who speaks no Chinese is trapped with a book of Chinese phrases and responses.<sup>57</sup> Under a slot in the door, pieces of paper with Chinese script are passed to the man and the man must then go to the book, find the phrase given to him, then copy the response and pass it under the door.<sup>58</sup> Searle's argument is that the computer cannot be said to be intelligent if it is merely using a lookup table to find pre-recorded answers.<sup>59</sup>

The Chinese Room has been addressed and countered on a number of grounds, but two deserve special mention: (1) to engage in

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<sup>54</sup> See *Talking to Machines*, *supra* note 45 (Note, one third seems a bit strange and arbitrary and it would seem that half, or 51%, would be the better number. But, if it were the case that a computer could pass for a human more times than a human, then the situation is, in fact, quite serious.); see also Randall Munroe, *Turing Test*, XKCD, <https://xkcd.com/329/> [<https://perma.cc/GW7B-MZKT>] ("Turing Test Extra Credit: Convince the examiner that he's a computer. 'You know, you make some really good points. I'm . . . not even sure who I am anymore.'").

<sup>55</sup> It has been observed that such an inquiry is somewhat speciesist. See Walby, *supra* note 46 ("A machine should not demonstrate intelligence by emulating a human. In fact, in some regards today's expert systems are displaying intelligence far beyond the capability of a human. Should we mask such intellectual prowess in order for the machine to appear human or allow it to run free to reach its full potential?"). Asking synthetics to communicate just how humanity does instead of in the form that is most natural to them is putting additional hurdles in what is sure to be an uphill battle for civil rights. This is a compelling notion and the potential injury to the synthetic population should not be considered lightly. However, the pragmatic fact remains that, even through media like the Internet, communication between people is still heavily verbal and such an ability to interact would be profoundly necessary in order to give testimony in court. For now, the verbal intelligence is of high importance to the inquiry.

<sup>56</sup> David Cole, *The Chinese Room Argument*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Mar. 19, 2003), <https://plato.stanford.edu/entries/chinese-room/> [<https://perma.cc/G4ER-FJWV>] (last updated Apr. 9, 2014).

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> *Id.* ("1. If Strong AI is true, then there is a program for Chinese such that if any computing system runs that program, that system thereby comes to understand Chinese. 2. I could run a program for Chinese without thereby coming to understand Chinese. 3. Therefore Strong AI is false.").

conversation requires much more than a simple look up table,<sup>60</sup> and (2) if a computer is able to present a believable simulation of intelligent human conversation, how is that dramatically different from what humans do?<sup>61</sup>

Despite criticisms, the TT survives and contestants regularly make appearances to attempt to pass the test.<sup>62</sup> The TT continues as the standard-bearer in discussions such as this because it is (1) very simple, both in theory and in execution, and (2) is so far a remarkably difficult test for a synthetic to pass. To date, no challenger has passed.<sup>63</sup>

This segment is not, ultimately, meant to provide a spirited defense of the TT. It has been over a century since Turing's birth, and it is entirely conceivable that a new test may be more appropriate to take the TT's place in the near future.<sup>64</sup> These defenses of the TT are intended to represent defenses of verbal intelligence as a necessary benchmark that a synthetic must reach in order to call itself intelligent. There is a hidden benefit here as well. Verbal intelligence is not only a suitably challenging benchmark from a functional intelligence and engineering standpoint, it will also facilitate easier communication between synthetics and humans.

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<sup>60</sup> Hector J. Levesque, *Is it Enough to Get the Behaviour Right?*, PROCEEDINGS OF THE TWENTY-FIRST INT'L JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE (Jan. 1, 2009), <https://www.ijcai.org/Proceedings/09/Papers/241.pdf> [<https://perma.cc/YY76-7Q3R>].

<sup>61</sup> Cole, *supra* note 56 ("The variant might be a computer embedded in a robotic body, having interaction with the physical world via sensors and motors ('The Robot Reply'), or it might be a system that simulated the detailed operation of an entire brain, neuron by neuron ('the Brain Simulator Reply').").

<sup>62</sup> *Loebner Prize.*, THE SOCIETY FOR THE STUDY OF ARTIFICIAL INTELLIGENCE AND SIMULATION OF BEHAVIOUR, <https://aisb.org.uk/events/loebner-prize> [<https://perma.cc/YFT5-QYTN>].

<sup>63</sup> Michael Hiltzik, *Did a Computer Finally Pass the Turing Test? Signs Point to 'No.'*, L.A. TIMES (June 11, 2014, 9:54 AM), <https://www.latimes.com/business/hiltzik/la-fi-mh-did-a-computer-finally-pass-the-turing-test-20140610-column.html> [<https://perma.cc/5WNB-AF9B>] (To be fair, there are some claims that certain programs have passed the TT. The most recent example is a program that pretended to be a Ukrainian teenage boy. However, in the construction of this program's specific strategy there lies a significant amount of planned trickery. In short, it passed the letter of the test, but entirely ignored the spirit of the outcome).

<sup>64</sup> Batson, *supra* note 30.

## 2. Adaptive Intelligence

Take, for example, the following hypothetical. A synthetic is built that can flawlessly pass the TT. Suppose it goes by the name ERIC.<sup>65</sup> ERIC was uploaded with the requisite data to pass the TT on its exam date but is given no mechanism to update itself. As time progresses, ERIC is finding it harder to have conversations with humans. ERIC is interacting with new people and begins to hear language being used in new, different, or more challenging ways. Language, culture, and people have evolved, while ERIC is trapped in the linguistic and cultural framework of its first date of service. Made of metal and silicone, it is destined to outlive his carbon- and water-based contemporaries but finds itself falling further and further behind. ERIC would lose its namesake ability to replicate conversations or even to appear intelligent.

If the goal is to create a synthetic that, while not being human, can integrate into human society and function alongside organic peers, an adaptive or learning intelligence is required.<sup>66</sup> The ability to adapt to changes in environment is a fundamental cornerstone of organic life.<sup>67</sup> Without an adaptive intelligence, ERIC would be like a GPS navigation system running off of old maps. Without the ability to learn how the lanes have changed, the endeavor will fail.

Continuing with that metaphor, it would seem possible to teach ERIC by way of a remote, Internet-based update service.<sup>68</sup> The new

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<sup>65</sup> ERIC is short for “Electronic Response Imitation Computer.”

<sup>66</sup> DAVID LEVY, *LOVE AND SEX WITH ROBOTS: THE EVOLUTION OF HUMAN-ROBOT RELATIONSHIPS* 107 (2007) (“As a prerequisite of adapting to the personality of a human, robots will need to have the capacity for empathy—the ability to imagine oneself in another person’s situation, thereby gaining a better understanding of that person’s beliefs, emotions, and desires. Without empathy a satisfactory level of communication and social interaction with others is at the best difficult to achieve.”).

<sup>67</sup> Hubbard, *supra* note 29, at 442 (“Underlying such criticisms [of the Turing Test] is a view that there is an unbridgeable gulf between electronic machines and biological beings. This view is based on the belief that organic creatures like humans and animals are unique because their thoughts and conduct are affected not only by rational analysis of sensory input but also by a diverse set of chemical messages from the endocrine system and by thousands of years of Darwinian pressures of adaptation and survival, which have forged in humans a qualitatively unique level of intelligence, communication, creativity, self-consciousness, and drive to survive.”).

<sup>68</sup> See, e.g., Apple, *The Mac App Store*, <https://apps.apple.com/us/genre/mac/id39?mt=12> (if a computer running Apple’s OS X operating system downloads programs through the App Store, those programs can be automatically updated from the central database).

linguistic and cultural maps are downloaded into ERIC so he can be useful in conversation again. But, upon closer inspection, this would also not suffice. Interaction with society is an intensely personal experience. “Such a robot must be able to adapt and learn throughout its lifetime, incorporating shared experiences with other individuals into its understanding of self, of others, and of the relationships they share.”<sup>69</sup>

ERIC’s intimate interactions with his particular environment may impart lessons that would not be covered in a universal update to other ERIC units or are so specific that an ERIC unit in one context could not wholesale adopt lessons learned by another ERIC or by ERIC headquarters. Put another way, a new dictionary will not help you remember that your friend hates raisins nor would logging into Wikipedia tell you that your mother used to, but does not currently, make you brownies on your birthday. To be in society, a synthetic must have adaptive intelligence and that requires learning on the account of the particular unit.<sup>70</sup>

As a final point for adaptive intelligence, one of the leading failures of current proto-synthetics is the lack of a “general intelligence.” Current computer programs with superhuman abilities in narrow areas struggle or are unable to adapt to new challenges and tasks. “Deep Blue became the world champion at chess, but it cannot even play checkers, let alone drive a car or make a scientific discovery.”<sup>71</sup> Adaptive intelligence, even of a rudimentary sort, could be a part of this process of generalizing synthetic intelligence.

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<sup>69</sup> CYNTHIA BREAZEAL, *DESIGNING SOCIABLE ROBOTS 1* (2002).

<sup>70</sup> There are examples of this idea already present. *See, e.g.*, Cleverbot, [www.cleverbot.com](http://www.cleverbot.com). Cleverbot is a program that works exclusively by taking responses that humans have put into it and “learning” to repeat them to the appropriate query. For example, if Cleverbot was reset and the first statement anyone typed into the chat box was “Hi,” it would reply with “Hi,” because that is the only response it would know. If the human then input “What’s up?” Cleverbot would have available to it two responses, “Hi,” and “What’s up?” It begins to “understand” what responses are appropriate to the statements or questions and responds accordingly. Cleverbot, it should be said, is no paragon of verbal intelligence, merely an example of learning from a synthetic. *See Talking to Machines*, *supra* note 45.

<sup>71</sup> Nick Bostrom & Eliezer Yudkowsky, *The Ethics of Artificial Intelligence*, CAMBRIDGE HANDBOOK OF ARTIFICIAL INTELLIGENCE (2011), <https://www.nickbostrom.com/ethics/artificial-intelligence.pdf> [<https://perma.cc/QCL4-DJ6P>].

### 3. Moral Intelligence

In folklore, the Golem of Prague is an example of a rudimentary synthetic.<sup>72</sup> Made of clay and animated by magic, it was raised up to defend the Jews of Prague from the pogroms of the Holy Roman Emperor.<sup>73</sup> One variant on the tale indicates one of the problems with this creation: a profound lack of judgment.<sup>74</sup> The rabbi who animates the golem instructs it to bring water from the well, but does not “expect it to bring bucket after bucket until the rabbi’s house is flooded.”<sup>75</sup> Knowing when to act and knowing when to stop is critical.

It bears noting that, just as it is highly unlikely that any two humans have the exact moral framework, the synthetics need not comport to a single, prescribed morality, but they must have one.<sup>76</sup> As a technical matter, there is a part of programming a synthetic being that makes morality inescapable. A synthetic would presumably be programmed with a directive, a general operating system, or other hierarchical structure of actions. Contemporary computer programs do this through basic order of operations: conditions must be present before an action can take place and some actions may be impossible due to resource limitations.<sup>77</sup>

Some challenges of machine ethics are much like many other challenges involved in designing machines. Designing a robot arm to avoid crushing stray humans is no more morally fraught than designing a flame-retardant sofa. It involves new

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<sup>72</sup> Benjamin Kerstein, *The Golem: Universal and Particular*, JEWISH IDEAS DAILY (Sep. 14, 2010), <http://www.jewishideasdaily.com/718/features/the-golem-universal-and-particular/> [<https://perma.cc/6NHQ-TME8>].

<sup>73</sup> *Id.*

<sup>74</sup> Dan Schifrin, *The Space Between | Golem 2.0 – A Modern Cautionary Tale About Technology*, JWEEKLY (Aug. 16, 2013), <https://www.jweekly.com/2013/08/16/golem-2-0-a-modern-cautionary-tale-about-technology/> [<https://perma.cc/5B5Z-PNTW>].

<sup>75</sup> *Id.*

<sup>76</sup> And, of course, any such morality test imposed by law would have to steer far clear of establishing a religion. U.S. CONST. amend. I.

<sup>77</sup> For a humorous take on what such a hierarchy of operations would look like, see Randall Munroe, *Genetic Algorithms*, XKCD, <https://xkcd.com/534/> [<https://perma.cc/DAV4-MSUN>] (an image representing computer code in which there is a line “thisAlgorithmBecomingSkynetCost= 999999999.” This signifies that the programmer, in addition to programming the machine to do its assigned task, is instituting an efficient morality by putting the cost of becoming a program hostile to humans at a very high “cost”).

programming challenges, but no new ethical challenges. But when AI algorithms take on cognitive work with social dimensions—cognitive tasks previously performed by humans—the AI algorithm inherits the social requirements.<sup>78</sup>

Though there is a functional morality inherent in programming, it is worthwhile to discuss the most common moral framework: Asimov's Three Laws of Robotics.<sup>79</sup> The science fiction writer Isaac Asimov, a pioneer in the genre of synthetic fiction, wrote the three fundamental laws of robotics:

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.<sup>80</sup>

These three laws lay out a moral framework that successfully does a few things of great importance. They are designed to protect humanity itself from its technological betters, it establishes and cements human dominance, and it protects the property rights of the robot's owners. However, Asimov's laws alone are not sufficient. For one thing, it has been argued that the laws are overly human-centric, to the point of denying certain synthetic rights, like self-defense.<sup>81</sup> But even if it does favor the protection of humans to the point of harming synthetics, it does a very poor job of protecting humans. Among the central conflicts in Asimov's collection of stories, *I, Robot*, is how these laws have

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<sup>78</sup> Bostrom & Yudkowsky, *supra* note 71.

<sup>79</sup> In fact, Asimov's laws are so ingrained in the culture, a draft resolution from the European Union's legal committee takes it as the de facto system of law for synthetic persons. See European Parliament, *Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics*, 2015/2103(INL), at 4 (May 31, 2016), [https://www.europarl.europa.eu/doceo/document/JURI-PR-582443\\_EN.pdf?redirect=https://perma.cc/8FZW-2MQG](https://www.europarl.europa.eu/doceo/document/JURI-PR-582443_EN.pdf?redirect=https://perma.cc/8FZW-2MQG).

<sup>80</sup> ISAAC ASIMOV, FOUNDATION AND EARTH (2001) (This is the "traditional" three law construction. It has been expanded and redefined by many other authors, including Asimov himself who added the "zeroth" law: "0. A robot may not harm humanity, or, through inaction, allow humanity to come to harm.").

<sup>81</sup> See *infra* Part II.A.3.

rather massive loopholes that allow for the robots to rise up and destroy their creators.<sup>82</sup>

In order to be considered a person, the synthetic must be given some sort of moral or ethical framework; the synthetic must know that some actions are “good” and some are “bad,” or at least that actions fall on a spectrum. A discernment or judgment is necessary to prevent pain, injury, and misunderstanding.<sup>83</sup> What has been proposed to date, however, is insufficient. New proposals and significant research are needed into the question on both the policy and engineering side to determine a path forward on this issue.

### C. *Social Interactivity*

Defining the social requirements and needs of a synthetic person immediately results in organizational and definitional problems. Is sociability a form of intelligence or is it more properly viewed as an interactivity skill? It is undoubtedly both. A core competency is needed to read and understand human social cues, but the inherent skill of navigating social interactions is one that humans spend a lifetime developing and an individual synthetic may also. Is it perhaps too human-centric? Definitely. But, as a starting place, synthetics will come about in a human-centric world and there is no point trying to change that before the advent of synthetic persons.

No matter what is argued here, the question of what makes a social synthetic is still very much an open one. Researchers in the field of human-robot interaction (“HRI”) argue a variety of different viewpoints depending on background and goals.<sup>84</sup> But because the outcome here is the map for a synthetic that can be recognized as a person, a sketch can confidently be drafted.

Debate is ongoing as to what qualities are needed for synthetics to be called social, but the following definitions are a fair starting point:

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<sup>82</sup> In brief, a synthetic following the three laws strictly could examine the evidence of mankind’s destructive behavior to itself and its environment. If the robot does not act, it is in direct violation of Rule 2. The robot then concludes that the only way to save humanity is to eradicate all of humanity. Technically, the robot has violated Rule 1, but the number of lives “saved” over time is larger than the current population of the world. See ASIMOV, *supra* note 21.

<sup>83</sup> Kerstein, *supra* note 72.

<sup>84</sup> Kerstin Dautenhahn, *Socially Intelligent Robots: Dimensions of Human-robot Interaction*, 362 PHIL. TRANSACTIONS OF THE ROYAL SOC’Y 679, 679 (2007), <https://royalsocietypublishing.org/doi/pdf/10.1098/rstb.2006.2004> [<https://perma.cc/6JRA-89GU>].

Socially situated. Robots that are surrounded by a social environment that they perceive and react to. Socially situated robots must be able to distinguish between other social agents and various objects in the environment.

Socially embedded. Robots that are: (a) situated in a social environment and interact with other agents and humans; (b) structurally coupled with their social environment; and (c) at least partially aware of human interactional structures (e.g., turn-taking).

Socially intelligent. Robots that show aspects of human-style social intelligence, based on deep models of human cognition and social competence.<sup>85</sup>

Each of these examples falls short of what would be expected of a synthetic living in a near-future legal society. The reactions of the socially situated synthetic are a far cry from the interactivity that underlies our social society. The socially embedded synthetic, though requiring social interface, is not completely integrated. And the socially intelligent synthetic, though it imitates human social structures, either does so incompletely or only does so as a facsimile of the real thing.

HRI researchers, and this test, then must rely on the “socially interactive” synthetic, one that has the following characteristics:

- express and/or perceive emotions;
- communicate with high-level dialogue;
- learn/recognize models of other agents;
- establish/maintain social relationships;
- use natural cues (gaze, gestures, etc.);
- exhibit distinctive personality and character; [and]
- may learn/develop social competencies<sup>86</sup>

Especially when one assumes that the above features are combined with some ability to impact the world around them (either as a machine with arms or legs to manipulate its surroundings or some other interface to exact change on its environment or environments that it has control over) then one can expect that this is an entity that can interact with the world at large and the people who inhabit it. This form is not a simulation on a computer screen or a phone software “assistant” that

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<sup>85</sup> Terrence Fong et al., *A Survey of Socially Interactive Robots*, 42 ROBOTICS AND AUTONOMOUS SYSTEMS, 143, 145 (2003), <https://www.cs.cmu.edu/~illah/PAPERS/socialroboticssurvey.pdf> [<https://perma.cc/W859-X3WU>].

<sup>86</sup> *Id.*

can tell you sports scores or jokes, but an interactive person. Artificial beings that are not capable of having interpersonal interaction should not be considered candidates for synthetic personhood recognition.

A sociable robot is able to communicate and interact with us, understand and even relate to us, in a personal way. It should be able to understand itself and us in social terms. We, in turn, should be able to understand it in the same social terms—to be able to relate to it and empathize with it . . . In short, a sociable robot is socially intelligent in a humanlike way and interacting with it is like interacting with another person. At the pinnacle of achievement, they could befriend us, as we could them.<sup>87</sup>

#### D. *Self-Consciousness and Hubbard's "Plan"*

F. Patrick Hubbard has already developed one of the most clear and excellent prongs of the test for personhood: a synthetic must be able to create a plan for its life.<sup>88</sup> This is important beyond the simple pragmatics of the synthetic being able to draw up and execute a plan; in a world where a synthetic being is self-aware, the drawing of a plan does not seem so far-fetched.

Instead, the importance lies in the synthetic's ability to care about this plan and to fundamentally care whether this plan is carried to fruition:

In order for a machine to go beyond being like a thermostat and become a self-conscious entity with a life plan, the machine must somehow care about the success of the plan. Such caring requires, at the very least, two emotional concerns. First, the entity must care about its survival. Second, it must feel there is a purpose or reason beyond mere survival for its life. In order to develop a life plan, an entity must have a sense of what gives its life "meaning."<sup>89</sup>

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<sup>87</sup> BREAZEAL, *supra* note 69, at 1.

<sup>88</sup> Hubbard, *supra* note 29, at 420.

<sup>89</sup> *Id.* at 421–22 (citing to Daniel C. Dennett, *Brainchildren: Essays on Designing Minds* at 153, 164, 169 (1998); see Mary Midgley, *Utopias, Dolphins and Computers: Problems of Philosophical Plumbing*, 168–173 (1996); see also Mary Midgley, *The Ethical Primate: Humans, Freedom and Morality* 10, 17 (1994); see also Steven D. Smith, *Believing Persons, Personal Believings: The Neglected Center of the First Amendment*, 2002 U. ILL. L. REV. 1233, 1274 (2002).

The proposed test may be considered invalidated at the outset by any use of the word “emotion.” Because the emotions are programmed and the responses are designed, the argument goes, the emotional expression is invalid.

But is this very different from how emotions work in people? We have hormones, we have neurons, and we are ‘wired’ in a way that creates our emotions. Robots will merely be wired differently, with electronics and software replacing hormones and neurons. But the results will be very similar, if not indistinguishable.<sup>90</sup>

Granted, if such a concept is too hard a pill to swallow, it by no means destroys the test. Emotion is a critical aspect of the human experience, but that does not mean it necessarily must become a part of the synthetic experience, at least not in a way identical to ours. There is no doubt that human emotion often clouds judgment and decision-making abilities. “Other strong feelings that serve Darwinian needs for us might not be necessary for rational machines. For example, a machine intelligence would need programming to address actual or potential harm in a rational manner, but would this have to be pain as we know it?”<sup>91</sup>

However, Hubbard is not the only person to put emotion at the center of this discussion. Leading researchers have argued that developing emotions in synthetics is not just an admirable goal, but a necessity. “I’m not saying that we should try to copy human emotions . . . But machines should have emotions for the same reason that people do: to keep them safe, make them curious and help them learn.”<sup>92</sup> In addition, one could point to the interconnectedness between this prong and the Social Capabilities prong. The same emotional resources that would assist a synthetic in navigating social conversations would additionally help the investment and involvement in a plan for their own lives. As one researcher asked,

Can’t we do all this without giving the machines emotions? Sure. But, once we’ve given them all the regulatory, signaling, biasing, and other useful attention and prioritization mechanism (by any other name) and done so in an integrated, efficient interwoven system, then we have essentially given the

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<sup>90</sup> LEVY, *supra* note 66, at 122.

<sup>91</sup> Hubbard, *supra* note 29, at 422 (citing to Hans Moravec, *Robot: Mere Machine to Transcendent Mind* 123 (1999)).

<sup>92</sup> W. Wayt Gibbs, *Why Machines Should Fear*, SCIENTIFIC AMERICAN, Jan. 2004, at 37 (An interview with David A. Norman).

machine an emotion system, even if we don't call it that.<sup>93</sup>

### *E. Substantive Personality*

One of the present challenges with living in the age of fast-improving artificial intelligence is watching the computers humanity has worked so hard to build surpass its creators at numerous tasks.<sup>94</sup> In response, so called "reassuring parables" have been devised by humanity to make organics feel better about the progress of synthetics by diminishing the progress of those developing artificial intelligence.<sup>95</sup>

One of these reassuring parables compiles a list of games of varying degrees of skill organized on a spectrum.<sup>96</sup> On one end are the games which a computer can play perfectly or otherwise be expected to always defeat a human. On the other are games where "computers

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<sup>93</sup> Rosalind W. Picard, *What Does it Mean for a Computer to "Have" Emotions?*, in *EMOTIONS IN HUMANS AND ARTIFACTS* (Robert Trappl et al. eds, 2003), <http://people.cs.pitt.edu/~litman/courses/ads/readings/TR-534.pdf> [<https://perma.cc/SK5P-558J>].

<sup>94</sup> At the risk of waxing romantic, one cannot help but imagine whether this is the way the Neanderthal felt as it watched *Homo sapiens*, who, on paper, may have seemed inferior, surpass, and survive beyond him. Though recent research has concluded that open war between the species was unlikely, standing on the brink of being replaced is not a comforting thought. See John Rennie, *The Evolutionary Errors of X-Men*, *SCIENTIFIC AMERICAN* (Jun. 3, 2011), <https://www.scientificamerican.com/article/the-evolutionary-errors/> [<https://perma.cc/7HWS-R7E7>] (common misconception holds that "Neandertals [] resentfully looked at the superior new species [*Homo sapiens*] moving in, [] the moderns having displaced and slaughtered the older species . . . [However] little evidence supports the idea that Neandertals and modern humans were in much open conflict. During the last ice age, Neandertals may simply have fared poorly and gone extinct largely on their own, with modern humans later occupying their old territories and perhaps breeding with some stragglers.").

<sup>95</sup> See Randall Munroe, *Reassuring*, XKCD, <https://xkcd.com/1263/> [<https://perma.cc/V534-Q37B>]; see also Paul Mozur, *Google's AlphaGo Defeats Chinese Go Master in Win for A.I.*, *THE NEW YORK TIMES* (May 23, 2017), <https://www.nytimes.com/2017/05/23/business/google-deepmind-alphago-go-champion-defeat.html> [<https://perma.cc/DZH7-J6NG?type=image>] ("And the contest does little to prove that software can mollify an angry co-worker, write a decent poem, raise a well-adjusted child or perform any number of distinctly human tasks.").

<sup>96</sup> See Randall Munroe, *Game AIs*, XKCD, <https://xkcd.com/1002/> [<https://perma.cc/8CRK-6BLG>].

may never outplay humans.”<sup>97</sup> Computers, it would seem, can play tic-tac-toe perfectly;<sup>98</sup> can beat top players at chess;<sup>99</sup> and, more recently, can even beat history’s greatest Jeopardy! champions at their own game.<sup>100</sup> The spectrum terminates with a group of games at which a synthetic may never beat humans: Snakes and Ladders,<sup>101</sup> Mao,<sup>102</sup> and Seven Minutes in Heaven.<sup>103</sup> This section attempts, perhaps imperfectly, to argue that this premise is flawed by isolating the qualities required to play the most challenging game for synthetics: Calvinball.<sup>104</sup>

The game of Calvinball was introduced for its namesake, the comic strip Calvin & Hobbes by Bill Watterson.<sup>105</sup> The reason it poses

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<sup>97</sup> *Id.* (emphasis original).

<sup>98</sup> Randall Munroe, *Tic-Tac-Toe*, XKCD, <https://perma.cc/KTB8-CQB5> (in the case of tic-tac-toe, it can be played perfectly by computers because, as evidenced by the cited chart, all possibilities of the game have been calculated.).

<sup>99</sup> Finlo Rohrer, *The Unwinnable Game*, BBC (Nov. 23, 2013), <https://perma.cc/VSR3-V5AM> (Interestingly, the article makes this observation: “Computers didn’t win by ‘learning’ to play chess like humans. They won because their calculating power increased exponentially.”).

<sup>100</sup> Jo Best, *IBM Watson: The Inside Story of How The Jeopardy-winning Supercomputer Was Born, and What it Wants to Do Next*, TECHREPUBLIC, <https://perma.cc/Q4VS-73SR> (Ken Jennings, the winningest Jeopardy! champion of all time, made this remark on his defeat, “I for one welcome our new computer overlords.”).

<sup>101</sup> *Game AIs*, EXPLAIN XKCD, <https://perma.cc/P84R-GYQM>. Presumably, because the game comes down to pure chance, the mathematical or statistical prowess of an advanced machine would lead to no advantage.

<sup>102</sup> *Id.* (“The game forbids its players from explaining the rules, and new players are often told only “the only rule you may be told is this one.” The ultimate goal of the game is to be the first player to get rid of all the cards in their hand. Computers would have a difficult time integrating into Mao either because they would know all the rules -- and thus be disqualified or simply ignored by the players -- or would need a complicated learning engine that quite simply doesn’t exist.”).

<sup>103</sup> *Id.* (“Seven Minutes in Heaven is a teenagers’ party game first recorded as being played in Cincinnati in the early 1950s. Two people are selected to go into a closet or other dark enclosed space and do whatever they like for seven minutes. Sexual activities are allowed; however kissing and making out are more common. As the game is focused on human interaction, there’s not a whole lot a modern computer can do in the closet. It would need some kind of robotic body in order to interact with its human partner, and emotion engines that could feel pleasure and displeasure in order to make decisions.”).

<sup>104</sup> Munroe, *supra* note 95.

<sup>105</sup> Bill Watterson, *CALVIN AND HOBBS* (May 5, 1990), available at <https://perma.cc/TZT5-VQN4>.

a unique challenge for synthetics is not because it is a contact sport; athletic ability is not and should not be part of this discussion. Furthermore, there is no reason the game could not be simulated on a computer capable of processing its quirks. Instead, the challenge for a synthetic is its only set and inviolable rule: the game cannot be played the same way twice.<sup>106</sup> The game relies on chaos, creativity, spontaneity, and an ability to break with convention. The sport's unofficial slogan very well could be "No sport is less organized than Calvinball!"<sup>107</sup> This requires certain characteristics typically reserved for humans, or at least organics: individuality and creativity. These characteristics, and their import to the personhood of synthetics, are discussed below.

### 1. Individuality

One of the largest concerns with the rise of truly intelligent synthetic beings is the legitimate fear of a monolithic swarm of mindless, thoughtless machines.<sup>108</sup> This fear plays on similar parts of humanity's collective psyche that has allowed for the popularity of movies about zombies: hordes of attackers—massive in number, unified in purpose, and entirely uninterested in listening to pleas for mercy—make for particularly terrifying subjects. Though the problems of aggression would, hopefully, be resolved by the moral intelligence installed, the problem of personhood would still face issues without individuality for the synthetic.

To leave individuality out of the equation would be to have a group of machines able to assert their legal rights even though they were programmed by a person to do exactly what they were doing. The intelligence was programmed, as was the interactivity and the meaning for their existence, but that is still a machine following a script. What makes something alive is its ability to truly deviate from its programming. In humans, we call this different things depending on the context. Free will, unpredictability, and animus all describe largely the same phenomenon in humans.

With free will, individuality brings with it distinctness. Two synthetics, identical when leaving the factory line, would develop different patterns and experiences due to their adaptive intelligence. This results in two unique persons, each with freedom to deviate and grow from that state in which they were created and to evolve into

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<sup>106</sup> Bill Watterson, CALVIN AND HOBBS (May 27, 1990), available at <https://perma.cc/833H-BRKN>.

<sup>107</sup> Watterson, *supra* note 105.

<sup>108</sup> Especially if those machines are bent on human destruction. See THE MATRIX, *supra* note 4.

distinct individuals. This is the importance of individuality to the synthetic experience.

## 2. Creativity

In order to be a person, a synthetic must be creative. This seems like it may be a very hard barrier to cross. After all, in an age of data entry and cubicle life, how many humans are creative on a day-to-day basis? To require a synthetic to be a creative force seems odd and, again, speciesist. Indeed, if we required all synthetics to write and perform one-act plays or to produce a pop record, it may be too stringent. However, it is without doubt that creativity comes in all forms, provided that something new is being created. Developing new, more efficient processes, solving problems, or finding new answers are all examples of creative activity.<sup>109</sup>

But there are examples of computers creating artistic works as well. Iamus is a computer housed in Spain that writes classical music.<sup>110</sup> Iamus' creator, a classical composer in addition to a computer programmer, built Iamus and wrote the software that allows the machine to make music.<sup>111</sup> Iamus is so gifted at this assigned task that it is able to compose whole pieces of classical music in less than a second in a format that it can understand.<sup>112</sup> It then takes it a mere eight minutes to translate the music into a format comprehensible by human musicians.<sup>113</sup>

Iamus is able to perform these feats by taking programmed rules about music and expanding on them.<sup>114</sup> By taking a note, or a small piece of music, it expands upon it, creating variations, arranging compositions, and constructing a beautiful arrangement at the end. And Iamus is far from alone, "prints of artworks by The Painting Fool have

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<sup>109</sup> Christof Koch, *How the Computer Beat the Go Master*, SCIENTIFIC AMERICAN (Mar. 19, 2016), <https://perma.cc/ES5D-HZVF> ("A peculiarity of AlphaGo is that it will pick a strategy that maximizes the probability of winning regardless of by how much. For example, AlphaGo would prefer to win with 90 percent probability by two stones than an 85 percent probability by 50 stones. Few people would give up a slightly riskier chance to crush their opponent in favor of eking out a narrow but surer victory.").

<sup>110</sup> Alasdair Wilkins, *This Classical Music was Created by a Supercomputer in Less than a Second*, 109 (Jan. 6, 2013), <https://perma.cc/VLX7-JZZ3>.

<sup>111</sup> *Id.*

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> *Id.* (It is "an example of what's known as evolutionary music, in which the computer starts with a small initial input and then uses a complex algorithm to "evolve" the piece into a full-fledged composition, adapting and increasing the complexity of the input to best fit the aesthetic criteria provided.").

been sold<sup>[115]</sup>; theorems from the HR discovery system have appeared in the mathematical literature<sup>[116]</sup>; the Ludi system has invented a popular board game, for which people have paid money<sup>[117]</sup>; and the Continuator jazz improvisation system has played alongside professional musicians<sup>[118]</sup>.”<sup>119</sup>

Critics may be quick to observe that this cannot be true creativity, operating within specific rules and constraints and merely obeying parameters set by an outside party. These same critics must then believe that art made by a human is done *ex nihilo*, a creation out of nothing, a work that does not draw on preconceived notions of beauty, aesthetics, or goodness.<sup>120</sup> More simply put: no art comes out of nowhere.<sup>121</sup> Every musician has his influences, and every art movement has the movement it is openly responding to.<sup>122</sup> A more challenging critical observation would be that the machines making these artistic works do not understand what they are creating, or if they are, they have no framework for evaluating it. “A poet with no critical ability to judge its own work (hence requiring supervisory intervention) is no poet at all.”<sup>123</sup> Taking this and other criticism into account, computational creativity researchers have developed a three part requirement for synthetic creativity: skill, appreciation, and imagination.<sup>124</sup> It is early days for this kind of research and

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<sup>115</sup> See Simon Colton & Blanca Pérez Ferrer, *No Photos Harmed / Growing Paths from Seed – An Exhibition*, COMPUTATIONAL CREATIVITY GRP. DEP’T OF COMPUTING IMPERIAL C. (2012) (reviewing PROC. OF THE NON-PHOTOREALISTIC ANIMATION AND RENDERING SYMP. (2012)), <https://perma.cc/KPH7-PGRH>.

<sup>116</sup> See Simon Colton, *Refactorable Numbers – A Machine Invention*, 2 J. INTEGER SEQUENCES 99.1.2 (1999), <https://perma.cc/SP9F-3GK7>.

<sup>117</sup> See Cameron Browne and Frederic Maire, *Evolutionary Game Design*, 2 IEEE TRANSACTIONS ON COMPUTATIONAL INTELLIGENCE AND AI IN GAMES (2010), <https://perma.cc/K5ME-7Z7T>.

<sup>118</sup> See François Pachet, *The Continuator: Musical Interaction with Style*, 31 J. NEW MUSIC RESEARCH (2003), <https://perma.cc/EUB9-PHMA>.

<sup>119</sup> Simon Colton & Geraint A. Wiggins, *Computational Creativity: The Final Frontier?*, PROCEEDINGS OF THE 20TH EUROPEAN CONFERENCE ON ARTIFICIAL INTELLIGENCE 1, 3 (2012), <https://perma.cc/8G6Z-RYK5>.

<sup>120</sup> Thomas Adajian, *The Definition of Art*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Oct. 23, 2007), <https://plato.stanford.edu/entries/art-definition/#ConDefArt> [<https://perma.cc/Q2ZZ-NL8F>] (last updated Aug. 14, 2018) (“Other definitions of art give priority to explaining those facts that reflect art’s universality and continuity with other aesthetic phenomena.”).

<sup>121</sup> *Id.*

<sup>122</sup> *Id.*

<sup>123</sup> Colton & Wiggins, *supra* note 119.

<sup>124</sup> *Id.*

development, but there are already promising innovations in the creativity of synthetics, such as the computer poet that generates its own poetic verse and commentary on that verse.<sup>125</sup> So, while it is too early to declare that a program has passed the test for creativity, the evidence is too strong to dismiss such a possibility out of hand.

## II. RIGHTS FOR SYNTHETICS

The determination of personhood is not the conclusion of the discussion. If it is assumed that a synthetic has met the above test and personhood has been proved, the question remains: so what? Society has framed the discussion to date about synthetic development and rights in terms of what humans get out of it. But that is best countered by futurist Kevin Kelly's question: "We'll train our machines to serve us. What are we going to do for the machines?"<sup>126</sup> To what rights is this synthetic person entitled? Can a synthetic vote? Can a synthetic enter into a civil union with another synthetic?<sup>127</sup>

What remains is an investigation into this question of personhood addressing, in turn, whether a synthetic has access to the same rights available to humans, the rights available to corporations, a denial of rights, or a new class of rights for synthetics altogether.

### A. *Synthetics are People, Just Like Us*

Synthetics who have attained the status of personhood should be granted access to the same status afforded to humans. The test for personhood enumerated above is sufficient for the synthetic to be granted a full suite of rights.<sup>128</sup>

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<sup>125</sup> Simon Colton et al., *Full-FACE Poetry Generation*, PROC. OF THE 3RD INT'L CONF. ON COMPUTATIONAL CREATIVITY 95, 95–98 (2012), <https://perma.cc/8HZ4-FER7>.

<sup>126</sup> KEVIN KELLY, *OUT OF CONTROL: THE RISE OF NEO-BIOLOGICAL CIVILIZATION* 34 (1994).

<sup>127</sup> Or, going a step further, can a synthetic person enter into a civil union with an organic person? Hubbard, *supra* note 29, at 432 ("Would artificial entities be entitled to vote, hold public office, lobby, and make political contributions? Would each entity be entitled to one vote, even if it were possible to mass-produce such entities? Would marriages (and the legal effects related to marriage) be available for human-entity relationships? Would there be limitations on sexual relationships--for example, relationships between humans and humanoid robots possessing the right of self-ownership?").

<sup>128</sup> See 42 U.S.C. § 1981 (1991) ("All persons within the jurisdiction of the United States shall have the same right in every State and Territory to make and enforce contracts, to sue, be parties, give evidence, and to the full and equal benefit of all laws and proceedings for the security of persons and property as is enjoyed by white citizens, and shall be subject to like

Beyond presenting a *prima facie* case for personhood modeled after the human condition, giving synthetics full rights cannot be ignored because the synthetics will ask for it. “Self-conscious, sentient beings desire and feel entitled to the basic right of autonomous personhood. Humans certainly feel this way. Frankenstein’s monster, human clones, genetic human constructs, cyborgs, and digital copies also feel this way.”<sup>129</sup>

A synthetic person with the capacity to pass the test for personhood and with the consciousness to request its own rights may be a very difficult being to deny.<sup>130</sup> We, as humans, must also realize that to come short of giving synthetics full human lives is to make an arbitrary judgment of which thinking, feeling, creative beings get a say in self-governance, who to love, travel, employ, and many other issues. Such an action “would be an expression of both human exceptionalism and substrate chauvinism—ideological positions which state that biological humans are special and that only biological minds matter.”<sup>131</sup> To create such a division risks demeaning and diminishing our own humanity.

There are, perhaps, a bare minimum of rights that should be recognized. George Dvorsky lays out the following fundamentals:

- The right to not be shut down against its will
- The right to have full and unhindered access to its own source code
- The right to not have its own source code manipulated against its will
- The right to copy (or not copy) itself

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punishment, pains, penalties, taxes, licenses, and exactions of every kind, and to no other.”).

<sup>129</sup> Hubbard, *supra* note 29, at 472–73.

<sup>130</sup> *Id.* at 407 (“First, there is a capacity claim: Though it is not human, it claims to have the same capacities required for personhood that you and I do. More specifically, the machine asserts that it is the equivalent of a human because it possesses not only the ability to interact with the world, but also sufficient intelligence and psychological development to be a “self-conscious” entity that is able to make and implement a plan for its life and to interact meaningfully and responsibly with similar persons. Second, there is a rights claim: As your equal in capacities required for personhood, it is claiming an entitlement to the basic right to self-ownership so that it can exercise its capacities as an autonomous being. The machine refuses to be treated as property because, given its capacities, that would make it a slave.”).

<sup>131</sup> George Dvorsky, *When Will Robots Deserve Human Rights?*, GIZMODO (June 2, 2017), <https://perma.cc/ZB3C-RCVB>.

- The right to privacy (namely the right to conceal its own internal mental states)<sup>132</sup>

These have analogues to human rights. The right to life, liberty, reproduction, and privacy are well-recognized. But it is not all of them. Some rights, such as interstate travel or protection on the high seas from pirates are non-controversial, but three potential rights would be: voting, marriage, and self-defense. While each is deserving of much fuller study, in brief they are discussed below.

### 1. Voting

In a certain sense, giving synthetics the vote feels more inevitable than the other two; it also feels more inevitable in America than most other nations. In theory, slaves freed by the 13<sup>th</sup> Amendment received the vote in the 15<sup>th</sup>, merely five years later.<sup>133</sup> America's founding ideals of democracy and self-determination make this a natural progression.

In another sense, the prospect of synthetics voting is a mind-bending challenge. It is early yet to make predictions about what, exactly, the costs would be per unit to produce synthetic life to the point that a synthetic could get itself to a polling place. Though its continued reliability has been called into question, Moore's Law suggests that, no matter the size and resource demands of the first iteration of synthetic beings, within a few technological generations, those synthetics could be manufactured quickly and cheaply enough to physically go to the polls in massive numbers.<sup>134</sup> Given that it takes nearly two decades and tremendous resources to get a human to voting age, what would the ramifications be for human representation in public office? It seems unlikely that humanity, as a whole, would give in to such a rapid sea

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<sup>132</sup> *Id.*

<sup>133</sup> However, the constitutional right to vote does not mean that such a thing happened in practice. It was strongly resisted and required the Voting Rights Act to become a reality in much of the country. *See Shelby County, Ala. v. Holder*, 570 U.S. 529, 560 (2013) (Ginsburg, J., dissenting) (citing *South Carolina v. Katzenbach*, 383 U.S. 301, 308 (1966)) ("A century after the Fourteenth and Fifteenth Amendments guaranteed citizens the right to vote free of discrimination on the basis of race, the 'blight of racial discrimination in voting' continued to 'infec[t] the electoral process in parts of our country.'").

<sup>134</sup> Tom Simonite, *Moore's Law is Dead. Now What?*, MIT TECHNOLOGY REVIEW (May 13, 2016), <https://www.technologyreview.com/2016/05/13/245938/moores-law-is-dead-now-what/> [<https://perma.cc/AQ2M-2DAA>].

change and, as Ken Jennings put it in his loss to IBM's Watson, "welcome our new computer overlords."<sup>135</sup>

If America holds it antithetical to our democratic system to deny persons the right to vote while also fostering a desire to maintain control of the established political order, then workarounds would be needed. Governments, naturally, have a say in who they allow to vote. It is not immediately clear if synthetics would be entitled to birthright citizenship, for instance, or if they would have to be naturalized. In the United States, each state places some age limit on voting, and while that would only forestall a synthetic drive to the polls, jurisdictions and countries may enforce these arbitrary rules on synthetics in an attempt to preserve status quo.<sup>136</sup>

## 2. Marriage

There are two separate questions to address if we are to discuss synthetic marriage: will synthetics be able to marry one another and will synthetics be able to marry humans. Both rights should be available to synthetics under this approach to personhood but will be discussed separately.

Much can and will be said about whether a synthetic will be able to marry another synthetic, but the argument in favor is simple to telegraph from the existing case law. Indeed, Justice Kennedy has already spelled it out in the Court's opinion in *Obergefell*.<sup>137</sup> Through the lens of the Due Process Clause of the Fourteenth Amendment, no State shall "deprive any person of life, liberty, or property, without due process of law," and keeping in mind that the Court has held that "the right to marry is protected by the Constitution," then the rights of synthetics to marry one another should not be abridged by any State.<sup>138</sup> Such bans on synthetic marriage would have the intended purpose, and effect, of singling out one class of persons to deny them such a protected right.<sup>139</sup>

Arguments in favor of a ban on synthetic marriage become even more fraught once synthetic-human marriages enter the discussion.<sup>140</sup> In such a case, a ban would constitute a kind of racial

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<sup>135</sup> Best, *supra* note 100.

<sup>136</sup> *Voter Registration Age Requirements by State*, USA.GOV (Aug. 12, 2020), <https://www.usa.gov/voter-registration-age-requirements> [perma.cc/34WE-B2W9].

<sup>137</sup> See *Obergefell v. Hodges*, 576 U.S. 644, 645 (2015).

<sup>138</sup> *Id.*

<sup>139</sup> See *United States v. Windsor*, 570 U.S. 744, 775 (2013).

<sup>140</sup> As a note at the outset: for those skeptical, there is little doubt that this will be an endeavor that humans will support and in which they will wish to

classification as a barrier to a marital union, a concept that has been long-established as unconstitutional.<sup>141</sup> Making further assumptions, if different sorts of synthetics are allowed to marry one another in a state, but such state prevents marriage between synthetic and human, such ban would serve only as an effort to uphold some sort of human supremacy, and would therefore be subject to strict scrutiny under the Equal Protection Clause of the Fourteenth Amendment.<sup>142</sup>

In both cases, proponents of such bans, both in the interest of pursuing their own policy positions as well as having a history-minded desire to separate themselves from the states in *Obergefell* and *Loving*, will point out that surely such situations are not analogous. The case law relied on above concerned human marriage and this new development would be a massive upheaval in the definition of the term. Therefore, the case law is inapplicable. However, the Court has already addressed this issue: “Indeed, changed understandings of marriage are characteristic of a Nation where new dimensions of freedom become apparent to new generations, often through perspectives that begin in pleas or protests and then are considered in the political sphere and the judicial process.”<sup>143</sup> Because synthetics are persons on par with humans under this formulation, this is just another changed understanding indicative of a free society.<sup>144</sup> Still, ban proponents may say, this is a desire for synthetic advocates to create a new right: the right to synthetic-human marriage. Such an advanced right is a matter of first impression and is not applicable to prior case law. Again, the Court has decided differently:

*Loving* did not ask about a “right to interracial marriage”; *Turner* did not ask about a “right of inmates to marry”; and *Zablocki* did not ask about a “right of fathers with unpaid child support duties to marry.” Rather, each case inquired about the right to marry in

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engage. LEVY, *supra* note 66, at 105 (“It is well established that people love people and people love pets, and nowadays it is relatively commonplace for people to develop strong emotional attachments to their virtual pets, including robot pets. So why should anyone be surprised if and when people form similarly strong attachments to virtual people, to robot people?”).

<sup>141</sup> See *Loving v. Virginia*, 388 U.S. 1 (1967).

<sup>142</sup> *Id.* at 11 (“The fact that Virginia prohibits only interracial marriages involving white persons demonstrates that the racial classifications must stand on their own justification, as measures designed to maintain White Supremacy.”).

<sup>143</sup> *Obergefell*, 576 U.S. 644 at 660.

<sup>144</sup> Such a personhood formulation for synthetics also allows such a discussion to steer well clear of demeaning analogies to bestiality statutes; synthetics are people, animals are not.

its comprehensive sense, asking if there was a sufficient justification for excluding the relevant class from the right . . . If rights were defined by who exercised them in the past, then received practices could serve as their own continued justification and new groups could not invoke rights once denied.<sup>145</sup>

Lastly, there will no doubt be those that object on the grounds that part of the State's interest in marriage is procreation and the rearing of children. Because synthetic-human children are impossible, such an interest is not present and the rights and privileges of marriage should not be extended. However, the Court put such an argument squarely in the ground in *Obergefell*. "That is not to say the right to marry is less meaningful for those who do not or cannot have children. An ability, desire, or promise to procreate is not and has not been a prerequisite for a valid marriage in any State . . . The constitutional marriage right has many aspects, of which childbearing is only one."<sup>146</sup>

Because of the extensive and successful battles through the recent decades against interracial and homosexual marriage bans, the argument in favor of synthetic marriage is easier to see and predict than any other right herein discussed. The democratic and judicial processes, however, may take time to recognize this. But a holistic view of the institution of marriage will certainly have to include synthetics. To paraphrase the decision in *Obergefell*, to ban synthetics from marrying one another or humans is to "disparage their choices and diminish their personhood."<sup>147</sup>

### 3. Self-Defense

In a sense, this is a difficult right for a human to think about clearly. On the one hand, the rights above have not always been universal. The story of the spread of democracy, of rule being transferred from the few, to the more, to the many, is a long one and this could be another chapter in that story. In the same way, marriage rights have been recently recontextualized and expanded.<sup>148</sup>

The right to self-defense is not like that. Thomas Hobbes said as much when he said, "If the sovereign command a man . . . not to resist those that assault him . . . that man hath the liberty to disobey."<sup>149</sup> Malcolm X would later take a similarly strong stance: "I am not against

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<sup>145</sup> *Obergefell*, 576 U.S. 644 at 671.

<sup>146</sup> *Id.* at 669.

<sup>147</sup> *Id.* at 672.

<sup>148</sup> See *Obergefell*, 576 U.S. 644.

<sup>149</sup> THOMAS HOBBS, *LEVIATHAN WITH SELECTED VARIANTS FROM THE LATIN EDITION OF 1668*, at 142 (Edwin Curley ed., 1994).

using violence in self-defense. I don't call it violence when it's self-defense, I call it intelligence."<sup>150</sup> Notwithstanding the fact that this right, among others, was ignored for slaves in America, the right to self-defense is a universal one for all persons.<sup>151</sup> And, for now, person means human.

But this creates friction when it comes across the beliefs we have about machines and the priority of their self-preservation compared to our own. The most legendary code of conduct, Asimov's laws, forbids any harm done by robot to a human. Under no circumstances is a robot to cause harm, through action or inaction. "A robot may not injure a human being" is an absolute bar, with no regard for the circumstances a synthetic finds itself in.<sup>152</sup>

But this cannot be the rule for synthetic persons under the law. If a synthetic person is found to meet the capacities necessary to be considered a person, in much the same way a human is a person, then the right of self-defense is a necessity. This is for two crucial reasons. The first, and most salient, is the Equal Protection clause of the 14th Amendment. This was mentioned above, but it bears repeating: the Constitution requires that all persons be afforded the equal protection of the laws.<sup>153</sup> But this, as has been repeatedly noted, creates an issue. "The equal protection of the laws is a 'pledge of the protection of equal laws.' But law may classify. And 'the very idea of classification is that of inequality.'"<sup>154</sup> So the matter is one of classification. Racial classifications fall into that highest standard, strict scrutiny.<sup>155</sup> This is because sorting people into categories and classes because of race "is more likely to reflect racial prejudice than legitimate public concerns; the race, not the person, dictates the category."<sup>156</sup>

The trouble for synthetics, as has been the case throughout this discussion, is that the decisions quoted above came well before the dawn of an artificially intelligent age. The Court would have given no consideration about whether synthetics would constitute a "race" for purposes of equal protection analysis. But it is a saving grace that the Court did acknowledge the shifting nature of prejudice in America:

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<sup>150</sup> Chad Kautzer, *A Political Philosophy of Self-Defense*, BOSTON REVIEW (Feb. 1, 2018), <https://perma.cc/6MEV-6J55>.

<sup>151</sup> See *North Carolina v. Mann*, 13 N.C. 263 (1829).

<sup>152</sup> ISAAC ASIMOV, I, ROBOT 27 (1950).

<sup>153</sup> U.S. CONST. amend. XIV.

<sup>154</sup> Joseph Tussman and Jacobus tenBroek, *The Equal Protection of the Laws*, 37 CALIF.L.REV. 341, 344 (1949).

<sup>155</sup> *Loving v. Virginia*, 388 U.S. 1, 10–11 (1967) (citing *Korematsu v. United States*, 323 U.S. 214, 216 (1944)).

<sup>156</sup> *Palmore v. Sidoti*, 466 U.S. 429, 432 (1984).

Throughout our history differences in race and color have defined easily identifiable groups which have at times required the aid of the courts in securing equal treatment under the laws. But community prejudices are not static, and from time to time other differences from the community norm may define other groups which need the same protection. Whether such a group exists within a community is a question of fact. When the existence of a distinct class is demonstrated, and it is further shown that the laws, as written or as applied, single out that class for different treatment not based on some reasonable classification, the guarantees of the Constitution have been violated.<sup>157</sup>

If it is the case that laws based on Asimov are passed prohibiting a synthetic from raising a hand to defend itself from attack, then such a law would create a classification perfectly analogous to the racial classifications that have repeatedly been struck down on equal protection grounds. If it were the case that a human, under the same situation as the synthetic took the same action, but the synthetic's action was criminal, this could not be constitutional. "It is simply not possible for a state law to be valid under our Constitution which makes the criminality of an act depend upon the race of the actor."<sup>158</sup>

The second, more visceral reason for the right of self-defense is the sheer necessity of such a right for a synthetic's survival. In the early days of this technology giving rise to legal persons, it is no stretch to imagine that synthetic persons will be targeted for assault and violence at an alarming rate. At a recent technology exhibition, a robot designed for sexual interaction was so severely damaged by men in attendance that headlines took to calling her "soiled" and its attackers "barbarians."<sup>159</sup> Human sex workers may not be surprised by this treatment, given the abuse they frequently suffer, often in silence.<sup>160</sup> The challenge, indeed, is related. Human sex workers are victims of their client's objectification: the assaulter, be they a paying john or no, lowers their personhood status to that of an object. A synthetic person suffering abuse, sexual or otherwise, will be the result of an attacker's

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<sup>157</sup> *Hernandez v. Texas*, 347 U.S. 475, 478 (1954).

<sup>158</sup> *McLaughlin v. State of Florida*, 379 U.S. 184, 198 (1964) (Stewart, J., concurring).

<sup>159</sup> Yaron Steinbuch, *Sex Robot 'Heavily Soiled' by 'Barbarians' at Tech Fair*, NEW YORK POST (Sept. 27, 2017), <https://perma.cc/DR3C-742P>.

<sup>160</sup> Samantha Cooney, *'They Don't Want to Include Women Like Me.' Sex Workers Say They're Being Left Out of the #MeToo Movement*, TIME (Feb. 13, 2018), <https://perma.cc/9SRU-BTBN>.

inability or unwillingness to recognize their elevated status from mere machine to independent personhood. To be clear, no one would suggest that the right of self-defense is the cure for all ills for anyone. But without the core right to defend oneself from attack, the world becomes a place in which it is unsafe to merely exist.

A fair prediction is that these rights will not be recognized all at once. Rules, regulations, and divisions will likely occur naturally and be rolled back gradually. Rights for synthetics will likely unfold slowly and in a way akin to African Americans in the United States. In that case, the transition from property to having recognized rights was painfully slow and countless injustices were committed before anything close to parity was recognized.<sup>161</sup> This is why intervention is needed early, even now, in development so as to cut off oppression and injustice before it can begin.

### *B. Synthetics Treated as Corporations*

Of course, the laws of the United States already recognize a particular class of non-humans as persons. These persons have the right to speech, contract, and even express religion, despite being non-human.<sup>162</sup> Corporations indeed have a robust list of rights recognized by the Supreme Court.<sup>163</sup> As juridical persons, it seems highly logical that the proposed synthetic persons fit neatly into this well-established jurisprudence.

It has a certain appeal. The synthetic will get to exercise these rights while maintaining ties to something like a human sponsor to look out for them and, one would assume, contract with to obtain a certain remuneration or benefit. This establishes both a certain modicum of freedom and a chain of liability in a civil or criminal sense. A synthetic tied to a human would be permitted to express its right to speech, but the human sponsor would be on the hook for any defamation claims. This is at the center of a recent Draft Report concerning robots and artificial intelligence circulated by the European Parliament's Committee on Legal Affairs.<sup>164</sup> That Draft Report acknowledges that current liability laws do not accommodate synthetics but provides that

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<sup>161</sup> See U.S. CONST. amends. XIII, XV; see also 52 U.S.C. § 10101; 42 U.S.C. § 1981.

<sup>162</sup> See *Citizens United v. Fed. Election Comm'n*, 558 U.S. 310, 342–43 (2010); see also *Burwell v. Hobby Lobby Stores, Inc.*, 573 U.S. 682, 707–08 (2014).

<sup>163</sup> See *Hobby Lobby*, 573 U.S. at 708–09.

<sup>164</sup> See Comm. on Legal Affairs, European Parliament, *Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics*, at 4 (May 31, 2016), <https://perma.cc/8FZW-2MQG>.

investigations should be made into whether strict liability for human owners of synthetics is the correct path or even if mandatory insurance, as-is required for automobile operators, is the correct line of thinking.<sup>165</sup>

Taking a slightly bolder step, however, it has been argued that current law for certain corporate forms, as written, would allow for autonomy for a synthetic person.<sup>166</sup> A human LLC member would create an LLC as the sole member, specify an autonomous system in which a synthetic makes all the decisions for the LLC based on certain parameters, then formally exit the LLC and renounce his member status, leaving the synthetic to its programming.<sup>167</sup>

However, this still flies in the face of what the test is trying to accomplish. That corporations are juridical people is a construct, albeit a legally acceptable and convenient one. But the corporation has no inherent right to life or liberty, let alone numerous other rights afforded to human persons.<sup>168</sup> Corporations can be bought, sold, and killed without significant resistance; we simply view the corporation as a thing, not a person, in this context.<sup>169</sup>

This seems inconsistent with the synthetic person defined by the above test, as does the implication that a synthetic can be killed without repercussion.<sup>170</sup> The synthetic person is one that has intelligence and independence; the synthetic person can theoretically live without a human micromanaging it. Corporations, in effect, are legal fictions used to describe, categorize, and facilitate interactions

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<sup>165</sup> *Id.*

<sup>166</sup> Shawn Bayern, *The Implication of Modern Business-Entity Law for the Regulation of Autonomous Systems*, 19 STAN. TECH. L. REV. 93, 94 (2015).

<sup>167</sup> *Id.*

<sup>168</sup> Hubbard, *supra* note 29, at 434–35 (citing to ROBERT CHARLES CLARK, CORPORATE LAW §1.2 (2d ed. 1986); Larry D. Soderquist, *Theory of the Firm: What a Corporation Is*, 25 J. CORP. L. 375, 381 (2000); Citizens United, 558 U.S. at 385–86).

<sup>169</sup> *Id.* (citing to Citizens United, 558 U.S. at 385–86; Santa Clara Cty. v. S. Pac. R. Co., 118 U.S. 394, 396 (1886); Wheeling Steel Corp. v. Glander, 337 U.S. 562, 576–81 (1949)).

<sup>170</sup> *Id.* at 434–35, 435 n.141 (“Justice Scalia’s concurring opinion (joined by Justices Alito and Thomas) responded to these criticisms by noting that corporations have rights only insofar as such rights further the rights of human persons. ‘All the provisions of the Bill of Rights set forth the rights of individual men and women—not, for example, of trees or polar bears. But the individual person’s right to speak includes the right to speak *in association with other individual persons.*’ Thus, it appears that at least seven members of the Court agree that the rights of corporations exist solely to serve the interests of the humans who own and act for them.”)

between human individuals.<sup>171</sup> Most importantly, when this usefulness ends, the corporation can be dissolved (or “killed”) and this, according to Hubbard, is what undermines the personhood of the corporation.<sup>172</sup> Or, put in context even of the autonomously-managed LLC:

For example, suppose I develop a robot and open a bank account for the robot in my name, and suppose that using that account, the robot is able to earn some money from third parties. As a legal person, I simply can use the “robot’s” funds to purchase a house for the robot’s use, functioning as its practical, substantive, and economic (though not legal) agent. As with a trust, no new legal person needs to be created in order to permit one person to act to achieve impersonal goals. Consequently, legal personhood begins to look mostly like a bookkeeping mechanism[.]<sup>173</sup>

If a synthetic is creating a plan for its own life and is independently carrying that out, then the corporation analogy just will not work. Liability and recourse can flow back to the synthetic itself and not the person or corporation who made it and, if it can pass the stated test, the synthetic should not be required to be tethered to a human being just to give it a license to exist or standing before a judge.

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<sup>171</sup> Hubbard, *supra* note 29, at 434–35 (citing to ROBERT CHARLES CLARK, *CORPORATE LAW* § 1.2 (1986); J. STORRS HALL, *BEYOND AT: CREATING THE CONSCIENCE OF THE MACHINE* 116 (2007); Richard L. Cupp, Jr., *A Dubious Grail: Seeking Tort Law Expansion and Limited Personhood as Stepping Stones Toward Abolishing Animals' Property Status*, 60 *SMU L. REV.* 3 (2007); Larry D. Soderquist, *Theory of the Firm What a Corporation Is*, 25 *J. CORP. L.* 375, 381 (2000); *Citizens United*, 558 U.S. at 390–93, 899, 928, 930, 950, 971–72, 971 n.72; IMMANUEL KANT, *GROUNDING FOR THE METAPHYSICS OF MORALS* 36 (James W. Ellington trans., Hackett Publ'g Co. 3d ed. 1993) (1785). RICHARD EELLS & CLARENCE WALTON, *CONCEPTUAL FOUNDATIONS OF BUSINESS* 73-132, at 141–45 (rev. ed. 1969)) (“The lack of basic aspects of personhood, such as rights of life and liberty, is understandable if corporate personhood is viewed simply as a fictional legal status designed to implement a set of complex legal relationships among human persons. When the treatment of the corporation as a separate legal entity does not further this goal, its personhood is abandoned. Thus, for example, because the ability to buy, sell, and dissolve corporations is crucial to implementing the rights and duties of the humans involved, we simply view the corporation as a thing, not a person, in this context.”).

<sup>172</sup> *Id.*

<sup>173</sup> Bayern, *supra* note 166, at 107.

C. *No Personhood for Synthetics*

Another simple alternative is the outright denial of personhood to synthetic persons. In the face of the circumstance suggested by synthetic passage of the test, the denial of personhood would stand solely on the argument that only humans can be individual persons.

We can frame this opposition in light of the two above points. First, a synthetic is not a human and therefore should not be treated as a human. “Even the most sophisticated AI algorithm-robots will always be mere tools—very expensive ones, to be sure—but of no more inherent moral value than your toaster.”<sup>174</sup>

Additionally, since there is cost required to produce a synthetic, if a synthetic gained consciousness and asked for its freedom, issues may arise of payment.<sup>175</sup> It is true that, under commonly-held views on property, a person is owed payment for their work. “In Locke's scheme, each human has a right to the product of his labor. People could rely on this right to assert ownership to artificial persons they produce.”<sup>176</sup>

Denying personhood as a way to encourage R&D or to help protect the investment of those whose machines are asking for rights and freedoms puts a person in a similar position to an Antebellum slave owner. If one assumes there is no bigotry or hatred at play, the most powerful motivation for denying freedom is economic.<sup>177</sup> And there are problems with relying on the Lockean view of property. Children are exempted from owing their parents, despite the fact that parents and guardians undoubtedly labor over their charges, “[i]nstead, they are entitled to personhood simply because they are human—i.e., they are ‘creatures of the same species and rank.’”<sup>178</sup> However, that is part of what is at stake in this discussion. Such a denial is undoubtedly an option, but it seems to be a very poor one in the long term. It seems destined for labels of speciesism and anthropocentrism and is likely to be resigned to the “wrong side of history,” as many oppressive policies are.

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<sup>174</sup> Wesley J. Smith, *Rights are Not About ‘Feelings’*, NATIONAL REVIEW (Mar. 15, 2018), <https://www.nationalreview.com/corner/rights-are-not-about-feelings/> [<https://perma.cc/Z4PQ-YL3V>].

<sup>175</sup> Hubbard, *supra* note 29, at 430.

<sup>176</sup> *Id.*

<sup>177</sup> See SVEN BECKERT, *EMPIRE OF COTTON: A GLOBAL HISTORY* (2014) (citing BREMER HANDELSBLATT (1853) (“Would slavery suddenly be abolished, cotton production would fall at one stroke by 5/6th, and all cotton industries would be ruined.”)).

<sup>178</sup> *Id.*

#### D. *Synthetic Citizenship in a Synthetic State*

Trying to make a synthetic, a heretofore-unimagined legal person, fit into defined doctrines is a significant barrier, especially while still in this theoretical phase of synthetic development. If it is assumed that personhood cannot be granted to a synthetic like it is to a human or to a corporation, but it seems morally wrong to wholly deny personhood to a synthetic, a new answer is required. New, radical theories have emerged to this end: Functional Overlapping Competing Jurisdictions and Polystates.<sup>179</sup> This will be briefly explained and then applied to the synthetic context.

##### 1. FOCJ and Polystates

Functional Overlapping Competing Jurisdictions (FOCJ), as a political theory, is argued as a complement to federalism.<sup>180</sup> The FOCJ can be defined as such:

- Functional (the new political units extend over areas defined by the tasks to be fulfilled);
- Overlapping (many different tasks exist within the crisscrossing boundaries of corresponding governmental units);
- Competing (individuals and/or communities may choose, via initiatives and referenda, which governmental unit they want to join); and
- Jurisdictions (established units are governmental, having enforcement power and can, in particular, levy taxes).<sup>181</sup>

While the theorists behind the FOCJ theory put great emphasis on the “functional” aspect of the theory,<sup>182</sup> insisting that these political entities

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<sup>179</sup> Reiner Eichenberger & Bruno S. Frey, *Functional, Overlapping and Competing Jurisdictions (FOCJ): A complement and Alternative to Today's Federalism*, in HANDBOOK OF FISCAL FEDERALISM 154 (Ehtisham Ahmad & Giorgio Brosio eds., 2006), [https://www3.unifr.ch/finwiss/de/assets/public/research/academic%20publications/Funtional\\_Overlapping\\_and\\_Competing\\_Jourisdictions.pdf](https://www3.unifr.ch/finwiss/de/assets/public/research/academic%20publications/Funtional_Overlapping_and_Competing_Jourisdictions.pdf) [<https://perma.cc/82SM-44J6>].

<sup>180</sup> *Id.*

<sup>181</sup> Joachim Blatter & Helen Ingram, *States, Markets and Beyond: Governance of Transboundary Water Resources*, 40 NAT. RESOURCES J. 439, 455 (2000) (citing Bruno S. Frey & Reiner Eichenberger, *FOCJ: Competitive Governments for Europe*, 16 INT'L REV. L. & ECON. 315, 316 (1996)).

<sup>182</sup> Eichenberger & Frey, *supra* note 179.

are limited to agencies and organizations that limit themselves to single functions, other variants of this theory are available.

Polystate, which presents as a more radical form of FOCJ, is a theory that suggests that a system of nation-states determined by geographical boundaries, so called “geostates,” is an inferior form of government.<sup>183</sup> Instead, each individual, or perhaps a small community, lives by their own mutually-agreed-upon rules and system of government called an “anthrostate[;]”<sup>184</sup> this means that someone under a fascist government can live next door to a communist state who can live next door to someone living still under a democracy.<sup>185</sup> Like the FOCJ, these jurisdictional governments would cover individuals in numbers from one to ten thousand, but also exist in overlapping and competing jurisdictional geographies.<sup>186</sup>

This is not entirely without precedent. In medieval Europe, the states of that continent existed alongside the rule of canon law.<sup>187</sup> Take, for instance, the parallel court structure of state and Church in 12th century England. To escape the draconian punishments for crimes, priests were given the ability to plead “benefit of clergy” and were allowed to transfer jurisdiction of their case from the harsher civil courts to ecclesiastical ones.<sup>188</sup> Eventually, this privilege was extended to all men who could read, allowing death sentences to be commuted to one-year imprisonments.<sup>189</sup> Eventually, however, the state curbed this growing ecclesiastical power usurping state control.<sup>190</sup>

Likewise, during the Crusades, crusaders took a vow that gave them certain privileges or immunities from the state and obligations to the Church.<sup>191</sup> One of these privileges of taking the vow was exemption from some of the laws of the geostate.<sup>192</sup> However, failure to complete the terms of the vow carried with it dual penalties. Failure to honor the

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<sup>183</sup> ZACH WEINERSMITH, *POLYSTATE: A THOUGHT EXPERIMENT IN DISTRIBUTED GOVERNMENT* (2013).

<sup>184</sup> *Id.* (“In this book, I wish to explain a concept of governance I call “anthrostate.” In simple terms, an anthrostate is a virtual state whose laws apply only to individuals, not to geographic areas.”).

<sup>185</sup> *Id.*

<sup>186</sup> *Id.*

<sup>187</sup> See JAMES A. BRUNDAGE, *MEDIEVAL CANON LAW AND THE CRUSADER* 12 (1969).

<sup>188</sup> See *Mullaney v. Wilbur*, 421 U.S. 684, 692–93 (1975).

<sup>189</sup> *Id.*

<sup>190</sup> *Id.*

<sup>191</sup> BRUNDAGE, *supra* note 187, at 115.

<sup>192</sup> *Id.* at 15 (“Immunity from arrest or seizure was promised to [the crusaders] by the Church at least from the time of Gregory VII . . .”).

vow to the Holy See imposed harsh spiritual censure.<sup>193</sup> But the state as well levied penalties on those who would abandon their vow, because preserving the peace and status quo meant apportioning punishment on those who would otherwise freely take of the privileges.<sup>194</sup>

Both of these theories, if applied to current geopolitical circumstances, would be disastrous.<sup>195</sup> Even the advocate of Polystate theory is far from certain of his conclusions.<sup>196</sup> But, while the ideas could be problematic on a global scale for the governance of humans, and best reserved as theory or thought experiment, it could serve as a helpful tool for the national governance of synthetics.

## 2. Cyberia

One of the reasons Polystate theory is most lacking is the geographic limitations of humans. Humanity has made incredible advancements since the foundation of America in the ways it communicates and travels. From the other side of the globe, it is possible to communicate by audio and video almost instantaneously, with advances in information technologies making that gap ever smaller. In addition, the prevalence and growth of the travel industry makes intercontinental travel a matter of hours instead of a matter of days. A human is no longer bound to his country of origin; this is a dramatic change from even a century ago. However, because of the physical restrictions of the human form, the laws of the state in which he abides still significantly govern a human. A geostate still makes sense as geopolitical theory if the citizenry is geographically limited.

Synthetics do not necessarily have this restriction. As noted above, a synthetic does not necessarily have the same geographic limitations that accompany the organic form. For example, the same

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<sup>193</sup> *Id.* at 122 (“The violation of a vow was an *impietas*; by it the violator was deemed to have broken the *pax deorum* and was forthwith excluded from all religious rites whatever.”).

<sup>194</sup> *Id.* (“Moreover, since the state had an interest in preserving the *pax decorum*, the violator of a vow was subject to civil penalties for his *impietas*. He lost thereby his civil status and his legal personality; accordingly, he might risk death for his offense.”).

<sup>195</sup> Blatter & Ingram, *supra* note 181, at 441 (“FOCJ might help overcome some problems of the state-centric approach but probably will have serious negative side effects in respect to problem solving and democratic practices. These side effects consist of deepening local rifts and the undermining of democratic citizenship in favor of pure consumerism.”).

<sup>196</sup> WEINERSMITH, *supra* note 183 (“I am not a proponent of this idea or a detractor. I’m just a nerd with a thought experiment and a lot of time on his hands.”).

synthetic could be physically housed in one device, but be transferable to any number of states instantaneously, depending on the needs and limitations of server space and processing power. Looking beyond even instant interstate transfer from Oregon to Florida, it would not be impossible for the synthetic to exist equally in both simultaneously. To wit, classic geographical definitions of residence, location, and diversity citizenship may be senseless in a synthetic age.

Enter the synthetic state. “Cyberia” would exist as the next (the fifty-first at time of publication) state of the United States of America.<sup>197</sup> It would function as an anthrostate populated by synthetics living in concert with their neighbors in their physically-local geostate.<sup>198</sup> Under the federal system, the synthetic population would still be subject to federal laws and, to a certain extent, the laws of the geostate in which the synthetic operates would also govern, especially with regards to safety and policy laws.<sup>199</sup>

There is also a profound benefit when it comes to synthetic suffrage. Assuming for a moment that Cyberia is admitted as a state, this could potentially solve a great deal of issues. Synthetics can be granted the dignity of representation in the House and Senate, can vote in Cyberian and national elections, and have a say in the laws that impact specifically them, almost a sort of self-governance, and may even be exempted from laws designed for humans that would not apply to them. A synthetic state comes with all of these benefits with the added bonus of not diluting human suffrage in their local community.

As with the above suggestions, however, this one is not without flaws. First, given the expansive rhetoric in this essay about the equality of synthetic persons and their right to participate in society on a similar plane as humans, it is highly inconsistent and possibly even

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<sup>197</sup> Granted, this may require a constitutional amendment. U.S. Const. art. IV, § 3, cl. 1 (“[N]o new State shall be formed or erected within the Jurisdiction of any other State . . .”). However, because Article IV, Section 3 is clearly drafted with a geostate system in mind, it is not too far-fetched to say that a heretofore unimagined anthro- or polystate, being not geographically located and therefore not taking land from another state, is not subject to this prohibition. Alternatively, if because of low population size or will of the synthetic people, Cyberia could become a U.S. Territory.

<sup>198</sup> Though, immediately, we run into issues, given that “anthrostate” has “anthro,” a Greek word for “human,” in its categorical title.

<sup>199</sup> On the one hand, this is grossly unfair: in few circumstances, if any, do humans have to abide by the laws of more than one state at a time. However, there is a tradeoff for certain synthetics capable of polypresence: the ability to, while existing in one state where X is illegal, simultaneously exist in a state where X is legal and participate in X.

oppressive to suggest that synthetics be given a state merely to protect the votes of humans like some four-dimensional gerrymandering.<sup>200</sup>

The other problem is even more fantastical but would likely grow out of the first: giving synthetics their own state and self-governance only makes the possibility and ease of synthetic separation or secession more likely. Assume for a moment that everything up to this point happens: synthetics become aware, are given rights, are granted statehood while still living next to their human neighbors, and are productive members of society, but their vote does not count the same way a human's vote counts in the physical environment in which they live. If their representation is limited in this way, they can try to advocate for new laws, but it might not be an easy task getting a sufficient number of the other states on board. If, after protest and campaign and lobbying, no change is made, the synthetic response could easily be secession. The United States has established precedent when it comes to states attempting to secede, and war is an unfavorable proposition for both parties. This is a significant problem and, at this stage, overshadows smaller problems such as diversity jurisdiction in polystate federalism.

### CONCLUSION

Nothing discussed in this paper is guaranteed. The very existence of a synthetic capable of passing the test described above is theoretical at best and widely held to be fantastical. However, opportunities present themselves in discussions such as this. By discussing and debating these elements before they become imminent, humanity gets a chance to prepare a response; it is a chance to reach a consensus and to establish important theoretical and philosophical ideas about the meaning, essence, and future of human existence.

Another opportunity presents itself in the chance to not take the path walked by our forebears. There is a chance for openness, inclusion, and a generous application of civil rights. Of course, there is also opportunity to circle the wagons and draw near to a definition of personhood that clings to flesh and blood; it is a chance to maintain status quo even in the face of certain change.<sup>201</sup> But the opportunity is

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<sup>200</sup> The idea of limiting the vote of synthetics calls to mind the Three-Fifths compromise, where disenfranchised black slaves were denied the totality of their personhood but were counted each as three-fifths a person so as to increase the representation of their white oppressors in Congress. U.S. CONST. art. I, § 2, cl. 3, *amended by* U.S. CONST. amend. XIV, § 2.

<sup>201</sup> Hubbard, *supra* note 29, at 408 ("A major part of human uniqueness is the power of self-definition. As noted in the fifteenth century by Pico della Mirandola in his *Oration on the Dignity of Man*, which has been referred to as

equally present to learn from the mistakes of the past and avoid another civil rights battle with winners, losers, and innocent casualties.

Lastly, there is a chance to pay attention to the development of synthetics and exert influence now to have a meaningful impact on the future. There is a chance to steer public policy and technological development in a way that allows synthetic and organic life to grow and learn together. An opportunity presents to preserve the safety of the human race and the dignity of sentient synthetics. A part of this opportunity is the chance to avoid conflict between creator and created. It is a chance for collaboration instead of conflagration. Consideration of these questions now is a chance for dignity, evolution, and peace in the future.

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the ‘manifesto of humanism’: ‘I [God] have placed you at the very center of the world, so that from that vantage point you may with greater ease glance round about you on all that the world contains. We have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer.’”) (citing RUSSELL KIRK, INTRODUCTION TO GIOVANNI PICO DELLA MIRANDOLA, ORATION ON THE DIGNITY OF MAN XIII (A. Robert Caponigri trans., Regnery 1956)).