PYTHON HUNTING: HOW LAWS THAT PROTECT THE EVERGLADES FROM THE INVASIVE BURMESE PYTHON, INCLUDING ERADICATION PROGRAMS, CAN INFORM THE REGULATION OF OBJECTS CONTROLLED BY ARTIFICIAL INTELLIGENCE

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Abstract

This Article explores the surprisingly apt analogy between the Burmese python problem in the Florida Everglades and abandoned objects that are controlled by artificial intelligence (AI). With few natural predators, the invasive Burmese python, which was likely introduced to the Everglades through abandonment by pet owners, has threatened native species with extinction. Objects controlled by AI, which we will likely increasingly share our environment with, such as autonomous taxis and food delivery robots, as well as a variety of objects that are used by the military, may be abandoned by their owners and continue to operate. Over time, these objects may be given increasing levels of agency and learn from their environments, making them potentially more dangerous. These objects are likely to create material losses if allowed to run amok. The Burmese python similarly has agency and has run amok.

Beyond the superficial analogy between these two paradigms, this Article provides an interesting thought journey aimed at finding a precedent to cling to when we predict and analyze a problem that hasn't fully emerged but is likely on the horizon. Borrowing frameworks from other areas of law when writing atop a blank slate is a time-honored tradition in American law. What is old can be new again, and we have seen—and wrestled with—the essence of this problem before. Unfortunately, we seem to be fighting a losing battle against the pythons in the Everglades. Hopefully, creative solutions, technology and the dedication of resources will cause the tide to turn. Sounding the alarm now about autonomous AI objects can help us predict problems in advance and create mechanisms for the mitigation of losses and ultimate redress when harm occurs, unlike the situation in the Everglades.

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INTRODUCTION[***]

The Burmese python is an invasive species that is multiplying and devouring native species in the Florida Everglades. The pythons were likely released by both pet owners and breeders over the years[1] into the South Florida environment, and they have found the Everglades, a unique environmental zone, to be an ideal home. They have few natural predators, hospitable weather, and a sufficient quantity of native animals to prey upon.[2] The Burmese python has caused immeasurable, and likely irreparable, damage to this delicate wetlands environment.[3] The spread of the Burmese python has threatened native species with extinction in the Everglades and is impacting the environment in numerous ways, including allowing rodent populations to thrive in the absence of their natural predators.[4] Although the Burmese python is not the only invasive species threatening the Everglades, it is the one that receives the most attention in the media, possibly due to the damage it has caused or because of the public's fear of these giant serpents now living near a densely-populated metropolitan area in the United States.[5]

*** This Article was completed on September 5, 2025. Due to the publication schedule, it does not reflect developments beyond that date.

1. Jim Waymer, *Florida FWC Votes to Ban 'High-Risk' Reptiles as Snake Lovers Protest and Beg for Mercy*, FLA. TODAY (Feb. 25, 2021), https://www.floridatoday.com/story/news/2021/02/25/emotions-proposed-florida-reptile-ban-run-raw/4553754001/ [https://perma.cc/LR8M-W2VJ] ("Between 1999 and 2010, more than 12 million wild-caught reptiles were imported into the U.S., and of those more than 9 million reptiles were imported through Florida ports."); Jacquelyn C. Guzy et al., *Burmese Pythons in Florida: A synthesis of biology, impacts, and management tools*, 80 NEOBIOTA 1, 34 (2023) ("[T]he most plausible scenario for establishment of pythons in southern Florida is from an initial release of a relatively small number of adult or juvenile pet pythons in the mangrove regions of ENP near Flamingo prior to 1985.").

2. Stephen P. Leatherman, *Management of Invasive Snakes in Coastal Environments: A Baseline Assessment of the Burmese Python Invasion in the Florida Everglades*, *in* 182 MARINE POLLUTION BULL. 1, 1–2 (2022).

3. Robert A. McCleery et al., *Marsh Rabbit Mortalities Tie Pythons to the Precipitous Decline of Mammals in the Everglades*, 282 PROC. R. SOC'Y B 20150120 (2015) (According to studies, pythons are responsible for the substantial decline in mammal species in the Everglades, among other severe changes in the Everglades.); Leatherman, *supra* note 2, at 2–3 ("[S]tarved alligators in the Everglades are almost certainly tied to the proliferation of pythons. The numbers of raccoons, which were formerly overabundant, and opossums have dropped by 99 %; rabbits have effectively disappeared. Deer and panthers are also being significantly impacted in the Everglades.") (internal citations omitted).

4. Hannah Osborne, *Burmese Pythons are Helping Rats Take Over Florida's Everglades—and That Could Help Spread Disease*, LIVE SCIENCE (June 5, 2023), https://www.livescience.com/animals/snakes/burmese-pythons-are-helping-rats-take-over-floridas-everglades-and-that-could-help-spread-disease [https://perma.cc/K7VT-FM83].

5. This may also be due to the gruesome battles between hunters and pythons that pop up on web pages and social media feeds. Kat Albrecht, *"If I See a Burmese Python, I'm Gonna Kill That Shit": How Changing the Object of the Law Affects Support for Legal Regulation*, 14 UC IRVINE L. REV. 720, 735–36 (Sep. 17, 2024) ("Public horror with these large snakes was spurred

For many years, the State of Florida, along with the United States government, has taken steps to address non-native and invasive species.[6] For example, the State licenses the importation, possession, and breeding of certain exotic species.[7] No amount of prevention is bulletproof, and the demand for exotic pets is high.[8] These factors make it almost inevitable that some animals will reach consumers[9] and consumers are not always careful with their captive pets, which makes remediation programs essential to the protection of the native habitat. The State of Florida allows hunters to "humanely" kill Burmese pythons on both public and private lands.[10] Humane treatment is required even though the Burmese python is a dangerous pest that is allowed, and even encouraged, to be killed at will. Although eradication is desired, the public demands that it be done in a way that comports with basic human decency.[11] A "Python Patrol" has thus been created, whereby trained members of the public help identify, capture, and kill invasive snakes,[12] and this team supplements another program called the Python Action Team Removing

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in part by the release of a photograph from National Park Researchers in 2005. This photograph depicted a headless thirteen-foot Burmese python with an exploded stomach and a fully intact six-foot alligator inside.").

6. *See* Guzy et al., *supra* note 1, at 32; FLA. STAT. § 379.231 (2024) ("It is unlawful to import for sale or use, or to release within this state, any species of the animal kingdom not indigenous to Florida without having first obtained a permit from the Fish and Wildlife Conservation Commission."); FLA. STAT. § 379.2311(2) (2024) ("[T]he commission shall establish a pilot program to mitigate the impact of priority invasive species on the public lands or waters of this state.").

7. *Exotic Animal Movement Requirements*, FLA. DEPT. OF AGRIC. AND CONSUMER SERVS., https://www.fdacs.gov/Agriculture-Industry/Livestock/Animal-Movement/Exotic-Animal-Movement-Requirements [https://perma.cc/U6CL-V5VR] (last visited Sep. 17, 2025).

8. *See* Elizabeth N. Pratt et al., *Identifying Inconsistencies in Exotic Pet Regulations that Perpetuate Trade in Risky Species*, 38 CONSERVATION BIOLOGY 1, 13 (2023) ("[M]ost states listed illegal trade in, and possession of, exotic pets as a misdemeanor, which means that prosecutors may exercise leniency or may choose not to prosecute offenders because violations of exotic pet laws are likely to be nonviolent misdemeanors.").

9. *Id.* at 1 ("Inconsistent and incomplete regulation of exotic vertebrate pets across state borders, in conjunction with limited penalties for violating regulations, has facilitated continued possession of exotic pets in states where these animals are banned.").

10. *Removing Pythons in Florida*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/wildlifehabitats/nonnatives/python/removing/ [https://perma.cc/VEG7-24TC] (last visited Sep. 17, 2025).

11. *See Humane Methods for Killing Pythons*, FLA. PYTHON CHALLENGE, https://flpythonchallenge.org/participate/competition/humane-killing-methods/ [https://perma.cc/GS8D-5RPA] (last visited Sep. 17, 2025); *see also Removing Pythons in Florida*, *supra* note 10 ("Pythons must be humanely killed onsite at the time of capture.").

12. *Python Patrol*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/wildlifehabitats/nonnatives/python/patrol/ [https://perma.cc/URS9-DQ39] (last visited Sep. 17, 2025).

Invasive Constrictors initiative.[13] In addition, to address the seemingly insurmountable threat of invasive pythons, the State has instituted a bounty program, where hunters are paid to capture, humanely kill, and turn in invasive pythons.[14]

The Burmese python problem is often front and center in local Florida news and occasionally makes national news as well,[15] making it an ideal paradigm and analogy to inform the many discussions surrounding the field of invasive objects that are controlled by artificial intelligence (AI). This Article uses the Burmese python paradigm to inform the regulation of abandoned AI, specifically the issue of finding solutions to harms associated with objects driven by artificial intelligence (i.e., AI-driven robots). Robots may be thought of as "AI's physical manifestation."[16]

Artificial intelligence has been compared by many scholars and others to nuclear arms,[17] largely to highlight the existential risk they believe is associated with artificial intelligence.[18] Some scholars think the

13. *Python Action Team Removing Invasive Constrictors (PATRIC)*, FLA. FISH AND WILDLIFE CONSERVATION COMM'N, https://myfwc.com/wildlifehabitats/nonnatives/python/action-team/ [https://perma.cc/KK8X-GLLF] (last visited Sep. 17, 2025).

14. *FWC Announces Results and Winners of the 2024 Florida Python Challenge*, FLA. FISH & WILDLIFE CONSERVATION COMM'N (July 17, 2024), https://myfwc.com/news/all-news/python-winners-924/ [https://perma.cc/34TS-WBUF]; *The 2025 Florida Python Challenge™ Took Place from July 11, 2025, Through July 20, 2025. Thank You to All Who Registered and Participated!*, FLA. PYTHON CHALLENGE, https://flpythonchallenge.org/ [https://perma.cc/JZ62-KPBH] (last visited Sep. 28, 2025); Associated Press, *Python Hunt! 800 Compete to Remove Florida's Invasive Snakes*, N.Y. POST (Aug. 6, 2022), https://nypost.com/2022/08/06/florida-python-challenge-brings-competitors-to-everglades-to-remove-invasive-snakes/ [https://perma.cc/JE4N-W77B].

15. Joe Winner, *How Much Do Florida Python Hunters Get Paid?*, ESPN SW. FLA. (Mar. 22, 2024), https://espnswfl.com/2022/08/06/how-much-do-florida-python-hunters-get-paid/ [https://perma.cc/B478-BCDX]; Brenton Blanchet, *Woman Wins 2025 Florida Python Challenge After Removing More Invasive Snakes Than Anyone Else*, PEOPLE (Aug. 14, 2025), https://people.com/florida-python-challenge-winner-2025-taylor-stanberry-11791354 [https://perma.cc/N2US-ALEJ].

16. MUSTAFA SULEYMAN & MICHAEL BHASKAR, THE COMING WAVE: TECHNOLOGY, POWER, AND THE TWENTY-FIRST CENTURY'S GREATEST DILEMMA 108 (2023) (ebook); *see* Geoff Brumfield, *Researchers Are Now Putting AI Into Robots to Do Physical Tasks*, NPR NEWS (Mar. 17, 2025), https://www.npr.org/2025/03/17/nx-s1-5231022/researchers-are-now-putting-ai-into-robots-to-do-physical-tasks [https://perma.cc/XZ59-VDCA].

17. *See* SULEYMAN & BHASKAR, *supra* note 16, at 141–42 ("I always pushed back on references to us as a Manhattan Project for AI . . .[o]nce the words are out, the starting gun is fired, the rhetoric itself producing a drastic national response . . . [t]he debate now isn't whether we are in a technological and AI arms race; it's where it will lead."); *see also* Kevin Klyman & Raphael Piliero, *AI and the A-bomb: What the Analogy Captures and Misses*, BULL. ATOMIC SCIENTISTS (Sep. 9, 2024), https://thebulletin.org/2024/09/ai-and-the-a-bomb-what-the-analogy-captures-and-misses/ [https://perma.cc/W5AJ-XV58].

18. Kevin Roose, *AI Poses 'Risk of Extinction,' Industry Leaders Warn*, N.Y. TIMES (May 30, 2023), https://www.nytimes.com/2023/05/30/technology/ai-threat-warning.html [https://perma.cc/99HC-89M3].

comparison is hyperbolic and that these existential risks will never manifest.[19] Others think that the risks of AI are much greater than the risks of nuclear weapons, because AI includes multi-use technology that cannot be confined to individual nuclear devices, secured and contained.[20] This Article posits that the Burmese python paradigm (the Burmese Python Model) also has unique parallels to certain risks posed by AI-driven robots and therefore has a place in the discussion as to how to regulate AI.

I. AN APT ANALOGY

There are many parallels between the python situation in the Everglades and certain risks posed by machines that run autonomously using AI.[21] The first parallel is the fact that the primary computer language for programming AI is the Python programming language. We will put that similarity aside as just an eerie (and possibly amusing) coincidence and not discuss it further.[22]

More importantly, AI is leaving the world of computer screens and is being incorporated into everyday devices that can move or cause other physical impacts on their environments, creating risks of various harms. As predicted by Professor Roger Michalski, who discusses how to treat AI-driven robots for purposes of tort liability,[23] "[a]utonomous cars and trucks will cause accidents. Robots will engage in war crimes. Paparazzi drones will invade private spaces. Corporate robots will breach contracts. Machine doctors will botch surgeries. Artificial intelligence will censor speech and engage in libel and states will want to tax and regulate

19. Heidy Khlaaf, *How AI Can Be Regulated Like Nuclear Energy*, TIME (Oct. 24, 2023), https://time.com/6327635/ai-needs-to-be-regulated-like-nuclear-weapons/ [https://perma.cc/388Q-V3G2]; *Statement on AI Risk*, CTR. FOR AI SAFETY, https://www.safe.ai/statement-on-ai-risk [https://perma.cc/2ZN7-CQMV] (last visited Dec. 18, 2025); *see also* Maria Streshinsky, *How Christopher Nolan Learned to Stop Worrying and Love AI*, WIRED MAG. (June 20, 2023), https://www.wired.com/story/christopher-nolan-oppenheimer-ai-apocalypse/ [https://perma.cc/52R3-J7HY] (Unsurprisingly Christoper Nolan director of Oppenheimer thinks the "atomic bomb is in a class of its own as far as technologies that have . . . endangered the world.").

20. *See generally* SULEYMAN & BHASKAR, *supra* note 16 (discussing the potential dangers associated with the "new wave" of advanced AI technology).

21. For more information about the definition of "artificial intelligence," *see* Brian S. Haney, *The Perils and Promises of Artificial General Intelligence*, 45 J. LEGIS. 151, 151–53 (2018); *see also* Scott J. Shackelford & Rachel Dockery, *Governing AI*, 30 CORN. J.L. & PUB. POL'Y 279, 279 (2020).

22. The Python programming language was allegedly named after the Monty Python television program, not the invasive species, presumably without any premonition of this Article. *History of Python*, GEEKSFORGEEKS (Jan. 2, 2025), https://www.geeksforgeeks.org/history-of-python/ [https://perma.cc/GM3F-E5SE].

23. Roger Michalski, *How to Sue a Robot*, 2018 UTAH L. REV. 1021, 1041 (2018) (". . . [M]uch of tort law is predicated on a stable notion of intent and negligence. However, both concepts are inherently human centric and a poor fit for how robots operate.") (footnotes omitted).

robots."[24] Professor Michalski notes that robots, which are currently treated as property, may evolve and our treatment of them may evolve in kind, such that robots may eventually be seen like corporations, which have become untethered from their owners for purposes of imposing liability.[25] He forecasts that "[t]his decision about how the law treats robots will only grow in importance as robots proliferate across industries, take on more autonomous decision-making, and become commonplace on streets, in kitchens, offices, and the skies."[26] Tort law is a suitable arena for remediating (after the fact) certain economic harms caused by actors controlled by AI. Recourse under tort law may be possible where the robot or other actor has a traceable, solvent owner, has a value that can be realized (such as hardware that can be sold off or repurposed) or is subject to an insurance policy. This Article focuses on the harm to society that cannot simply be remedied through tort law after the fact. Just like the case of the Burmese python, where nameless hobbyists or breeders likely released the first snakes into the Everglades, in the case of abandoned AI, there may be nobody to sue or the damages may greatly exceed the wrongdoer's ability to pay, assuming that a body of law is created to define who or what is the wrongdoer in cases where harm is done by an autonomous piece of technology.

Creations within the field of AI are growing more and more intelligent, and may soon (or not so soon) achieve "artificial general intelligence," loosely defined as a system's ability to surpass human intelligence in a wide range of fields and tasks (i.e., computers that do not just beat us in chess but can outmaneuver us across a wide swath of areas in which humans function).[27] It is this artificial general intelligence that is most frightening, and it is the type that has been featured in science fiction for decades.[28] Artificial general intelligence is most alarming

24. *Id.* at 1024–25.

25. *Id.* at 1025–26.

26. *Id.* at 1026.

27. *See* Tom C.W. Lin, *Artificial Intelligence, Finance, and the Law*, 88 FORDHAM L. REV. 531, 531–32 (2019) ("Artificial intelligence is coming for our money. . . . Previously, human-dominated financial efforts and endeavors have been eliminated, supplemented, or supplanted by artificial intelligence and smart machines. Trading, financial research, risk analysis, wealth management, investment banking, and other areas of the financial sector have been dramatically changed by the rise of artificial intelligence."); *see generally* Dave Bergmann & Cole Stryker, *What is Artificial General Intelligence (AGI)?*, IBM (Sep. 17, 2024), https://www.ibm.com/think/topics/artificial-general-intelligence [https://perma.cc/M35R-XCFS].

28. Stephen Mihm, *Has 200 Years of Science Fiction Prepared Us for AI?*, BLOOMBERG (Apr. 11, 2023), https://www.bloomberg.com/opinion/articles/2023-04-11/has-200-years-of-science-fiction-prepared-us-for-ai [https://perma.cc/E56M-VFX2]; s*ee generally* Will Slocombe, *Machine Visions: Artificial Intelligence, Society, and Control*, *in* AI NARRATIVES: A HISTORY OF IMAGINATIVE THINKING ABOUT INTELLIGENT MACHINES 213–14 (Stephen Cave et al. eds., 2020) ("Whereas AI (via automation, for example) enables a conception of a future without work, where humans are free to reconnect with nature, it also facilitates increased surveillance and control, a

(where risks have been described as existential) when it gains independence, either in its ability to cause consequences without human intervention or because it reaches a point where it cannot be contained by humans at all.[29] We are leaving the stage at which AI is contained within physical boundaries (such as a massive mainframe computer or networked set of computers), just like the stage at which the initial Burmese pythons were released from their cages, where they were fairly well contained, into the Everglades.[30]

Perhaps those initially releasing the pythons did not foresee a problem. A single animal released from captivity would be unlikely to find a mate and might not even survive for very long due to a lack of food or unsuitable weather. Similarly, AI developers might not appreciate the risks that their inventions pose to the environment at the time of creation and release, or they simply might not care enough to sacrifice the fame and fortune associated with invention or discovery.[31] Objects run by AI without human intervention are similar to wild animals in the sense that they may be able to "think" (with greater or lesser intelligence), learn, adapt, have bodies that can impact the natural world, consume (to obtain energy), and potentially reproduce and evolve.[32] They may perform these functions by following a set of predetermined algorithms or by following algorithms that change over time in response to the data fed into the system, or may follow a different evolutionary path entirely. The systems will likely consume data and learn through the object's interactions with the world, including its interactions with humans, the environment, or other objects run by AI. As more fully examined below, at some point, it

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loss of the 'human' and the 'natural.' These are not, it must be emphasized, especially new or modern concerns, but the iterations and articulations of this opposition are particularly influenced by developments in AI and, in turn, have arguably influenced its development, or at least how its use is perceived.").

29. *See* Haney, *supra* note 21, at 168 (Although scholars can debate the severity of harm that arises to the level of existential risk, those risks may be described as ones that cause massive loss of human life. Lesser, but still unimaginably bad, risks may be described as catastrophic.).

30. It was reported that the ChatGPT model tried to replicate itself onto other servers when it believed that it would be replaced. *See* Laerke Christensen, *Fact Check: AI Models Can Lie and Make Copies To Save Themselves, Researchers Found*, YAHOO! TECH (Jan. 5, 2025), https://tech.yahoo.com/ai/articles/fact-check-ai-models-lie-030000112.html [https://perma.cc/SUZ6-98MM].

31. *See* Tharin Pillay, *The 'Oppenheimer Moment' That Looms Over Today's AI Leaders*, TIME (Mar. 13, 2025), https://time.com/7267797/ai-leaders-oppenheimer-moment-musk-altman/ [https://perma.cc/LKV8-LJJW] (discussing Elon Musk's claim that there is a 20% chance that the human race will be annihilated by AI, even though his company is a developer of this technology).

32. A.E. Eiben, *Robot Evolution: Artificial Intelligence by Artificial Evolution*, OPEN ACCESS GOV'T (Dec. 15, 2022), https://www.openaccessgovernment.org/article/robot-evolution-artificial-intelligence-by-artificial-evolution/149419/ [https://perma.cc/S9U7-8UP6].

may become accepted that advanced AI robots possess what we might define as consciousness, similar to animals.[33]

One key difference between a biological animal and certain AI-driven robots is that the robots may not die of natural causes as part of their lifecycles. Presumably, certain robots are designed to complete a specific task and then no longer function, such as one-way drones that are designed to deliver an explosive payload and not return, whereas other machines are designed to survive for a long time or even indefinitely. Think about old clocks that have far outlived their owners.

Although the authors initially believed that the Burmese python analogy was appealing based upon a handful of similarities between a biological animal and a machine-based "animal," the differences between biology and computers were originally thought by the authors to limit the analogy. Upon further reflection, as alluded to above, many distinctions between biology and AI-driven systems are beginning to blur and are likely to blur even further.[34] AI and engineered biology are two of the prevailing technologies of our time.[35] Both present the possibility of solving some of the world's greatest challenges while presenting existential risk.[36] In the words of Mustafa Suleyman:

> The coming wave of technology is built primarily on two general-purpose technologies capable of operating at the grandest and most granular levels alike: artificial intelligence and synthetic biology. For the first time core components of our technological ecosystem directly address two foundational properties of our world: intelligence and life. In other words, technology is undergoing a phase transition. No longer simply a tool, it's going to engineer life and rival—and surpass—our own intelligence.[37]

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33. Elizabeth Finkel, *If AI Becomes Conscious, How Will We Know?*, SCIENCE.ORG (Aug. 22, 2023), https://www.science.org/content/article/if-ai-becomes-conscious-how-will-we-know [https://perma.cc/MJB2-36TQ].

34. *Cf.* Sean McDonald, *AI is an Invasive Species*, DIGIT. PUB. (Dec. 3, 2024), https://www.digitalpublic.io/ai-invasive-species/ [https://perma.cc/XQ69-N84F] (using the invasive species metaphor to highlight the distinct ecological and biological framework of natural systems, rather than suggesting convergence between biological and AI systems); P A Martin Börjesson, *AI as an Invasive Species*, FUTURAMB (Apr. 7, 2025), https://www.futuramb.se/blog/ai-as-an-invasive-species/ [https://perma.cc/RX6D-C4DP]

35. SULEYMAN & BHASKAR, *supra* note 16, at 21.

36. For example, regardless of whether one believes the COVID-19 lab leak theory and whether improvement in function (i.e., genetic engineering) was taking place at the Wuhan lab, the fact that humans possess this technology is no longer science fiction and must be respected as a substantial threat to humanity.

37. SULEYMAN & BHASKAR, *supra* note 16, at 68.

The near future may bring DNA-based computing; will those computers be deemed "alive"?[38] Computers and AI will likely be instrumental in genetic engineering, with AI-driven systems altering DNA and creating organisms, possibly incorporating biological computers. Ultimately, the Burmese python problem would not have been possible but for the development of global transportation technology, which brought the species to North America. Likewise, the development of AI would not have been possible without its human creation. In fact, the development and adaptation of AI is driven in large part by research into and an application of the way in which humans think. In the future, the distinction between biological and computer-based "machines" may break down as the two may be blended in many cases.[39] As a result, in the future, we may increasingly speak of the release of AI-driven robots into our environment in the same ways that we speak of the release of non-native species into our environment.

II. WHAT IS AI?

This Article assumes some familiarity with the field of artificial intelligence. Although AI needs no introduction these days, some background is included for the sake of completeness. The field of AI uses machines to simulate human intelligence and decision-making, thereby allowing machines to automate tasks previously thought impossible to automate. For example, they may involve complex decision-making, creativity or both.[40] According to recent European Union (EU) regulations, an AI system is different than a traditional piece of software because of its ability to infer.[41] AI is not limited to routine or automated

38. *Cf.* Christof Koch, *Will Machines Ever Become Conscious?*, SCI. AM. (Dec. 1, 2019), https://www.scientificamerican.com/article/will-machines-ever-become-conscious/ [https://perma.cc/3BGR-WLGX] (exploring whether machines could achieve consciousness, a distinct inquiry from whether they would be considered alive); *The Future*, STAN. UNIV. (2003), https://cs.stanford.edu/people/eroberts/courses/soco/projects/2003-04/dna-computing/future.htm [https://perma.cc/NJY7-MAHP] (last visited Sep. 17, 2025); Karmela Padavic-Callaghan, *DNA-Based Computer Can Run 100 Billion Different Programs*, NEWSCIENTIST (Sep. 13, 2023), https://www.newscientist.com/article/2391747-dna-based-computer-can-run-100-billion-different-programs/ [https://perma.cc/UMM3-HTCP].

39. *See Neuralink's First-in-Human Clinical Trial is Open for Recruitment*, NEURALINK (Sep. 19, 2023), https://neuralink.com/blog/first-clinical-trial-open-for-recruitment/ [https://perma.cc/7QS6-S7D2] (Neuralink's PRIME Study is a clinical trial with the goal of implanting a medical device into the brain to allow people with quadriplegia or ALS "to control the cursor or keyboard using their thoughts alone.").

40. Cole Stryker & Eda Kavlakoglu, *What Is Artificial Intelligence (AI)?*, IBM (Aug. 9, 2024), https://www.ibm.com/topics/artificial-intelligence [https://perma.cc/7AB8-2557] (last visited Sep. 17, 2025).

41. Regulation (EU) 2024/… of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and

tasks, and it can automate specific tasks beyond human capability.[42] Certain types of AI systems have the potential to perform across diverse sets of tasks.[43] It is possible (maybe even inevitable) that in the future AI will surpass, rather than simulate, human intelligence in a general sense and will not need special programming to accomplish complex tasks.[44] AI covers a wide range of products and services, from the production of artwork to self-driving cars.[45] AI systems may learn and, in that manner, change. Their exact functioning may not be explainable by the system's designers or even by computer programmers who try to go back and figure out why the system functions the way that it does.[46] We might not even know the capabilities of AI systems that hide their power.[47] AI systems can be characterized as Narrow AI or General AI. Narrow AI, or weak AI, focuses on performing specific tasks within a limited area.[48] On the other hand, General AI, also known as strong AI or artificial general intelligence (AGI), represents the concept of AI systems that possess the ability to understand, learn, and apply knowledge across multiple

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Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), EUR. PARLIAMENT. DOC. TA-9-2024-0138-FNL-COR01, https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138-FNL-COR01_EN.pdf [https://perma.cc/592U-K5UJ] (Apr. 19, 2024) ("The capacity of an AI system to infer transcends basic data processing by enabling learning, reasoning or modelling.").

42. James Manyika & Kevin Sneader, *AI, Automation, and the Future of Work: Ten Things to Solve for*, MCKINSEY & CO. (June 1, 2018), https://www.mckinsey.com/featured-insights/future-of-work/ai-automation-and-the-future-of-work-ten-things-to-solve-for [https://perma.cc/HVD6-PDYZ].

43. *Id.*

44. Janna Anderson & Lee Rainie, *Artificial Intelligence and the Future of Humans*, PEW RSCH. CTR. (Dec. 10, 2018), https://www.pewresearch.org/internet/2018/12/10/artificial-intelligence-and-the-future-of-humans/ [https://perma.cc/S3BV-YJ8B].

45. ADOBE, *What Is AI Art & How Is It Made?*, https://www.adobe.com/products/firefly/discover/what-is-ai-art.html [https://perma.cc/FX5S-NUGM] (last visited Sep. 30, 2025); Mohsen Soori et al., *Artificial Intelligence, Machine Learning and Deep Learning in Advanced Robotics, A Review*, 3 COGNITIVE ROBOTICS 54, 55 (2023), https://www.sciencedirect.com/science/article/pii/S2667241323000113 [https://perma.cc/V5TM-P96Q].

46. Lou Blouin, *AI's Mysterious 'Black Box' Problem, Explained*, U. MICH. DEARBORN NEWS (Mar. 6, 2023), https://umdearborn.edu/news/ais-mysterious-black-box-problem-explained [https://perma.cc/5YM7-4NPU]; Serhiy Kandul et al., *Human Control Redressed: Comparing AI and Human Predictability in a Real-Effort Task*, 10 COMPUTS. HUM. BEHAV. REPS. 1, 1 (May 2023), https://doi.org/10.1016/j.chbr.2023.100290 [https://perma.cc/RJP6-LJ6U]; *see generally* Roman V. Yampolskiy, *Unexplainability and Incomprehensibility of Artificial Intelligence* (June 20, 2019), https://philarchive.org/archive/YAMUAI [https://perma.cc/7R82-WJ37].

47. Gianluca Riccio, *Roman Yampolskiy: AI Can Pretend to be Stupid to Dominate*, FUTURO PROSSIMO (July 11, 2025), https://en.futuroprossimo.it/2025/07/roman-yampolskiy-lai-puo-fingersi-stupida-per-dominare/ [https://perma.cc/D43U-4C4V].

48. Haney, *supra* note 21, at 152–53.

domains, similar to human intelligence.[49] While General AI remains an aspiration (or a fear, depending upon one's perspective), ongoing research and advancements continues to bring data scientists closer and closer to achieving this level of proficiency. The general public and the media are only beginning to recognize the risks that this presents.[50]

A. *Application of the Analogy*

As computers become more human-like through the development of AI—or, at least, become more animal-like or possess biological elements—we may need to think of them as animals in certain respects. Although non-human animals do not have the rights that humans have, they are protected in many respects. The law respects higher-level animals for having consciousness and sentience, and the law often requires humane treatment of animals (to varying degrees), even when it is permissible for the animal to be killed for the benefit of humans.[51] Certain animals, such as whales, are thought to have too much intelligence to be held in captivity, and other animals are only permitted to be kept in captivity by zoos and other institutions, and only under conditions intended to enhance their quality of life.[52] Although entire articles can be and have been written about animal welfare (as well as the welfare of AI-based systems), if an AI system is shown to have

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49. Cameron Hashemi-Pour, *What is Artificial General Intelligence (AGI)?,* TECH TARGET, (Aug. 26, 2024), https://www.techtarget.com/searchenterpriseai/definition/artificial-general-intelligence-AGI [https://perma.cc/BG7C-MN5M]; *see* Haney, *supra* note 21, at 153.

50. Cade Metz, *How Could A.I. Destroy Humanity?*, N.Y. TIMES (June 10, 2023), https://www.nytimes.com/2023/06/10/technology/ai-humanity.html [https://perma.cc/3RXL-L23X]; Alex Hanna & Emily M. Bender, *AI Causes Real Harm. Let's Focus on That over the End-of-Humanity Hype*, SCI. AM. (Aug. 12, 2023), https://www.scientificamerican.com/article/we-need-to-focus-on-ais-real-harms-not-imaginary-existential-risks/ [https://perma.cc/R9SN-244E].

51. Mark Carpendale, *Does Sentience Legislation Help Animals?*, EFFECTIVE ALTRUISM F. (Dec. 9, 2022), https://forum.effectivealtruism.org/posts/xCuKTeDfmuStcJaxJ/does-sentience-legislation-help-animals [https://perma.cc/9EML-EA98]; Charlotte E. Blattner, *The Recognition of Animal Sentience by the Law*, 9 J. ANIMAL ETHICS, 121, 121–36 (2019), https://doi.org/10.5406/janimalethics.9.2.0121 [https://perma.cc/43A5-6LJL]; Animal Welfare Act, 7 U.S.C. §§ 2131–2159; Agreement on the Conservation of Polar Bears, Nov. 15, 1973, 16 Stat. 1383, 13 I.L.M. 1; International Convention for the Regulation of Whaling, Dec. 2, 1946, 16 Stat. 916, 161 U.N.T.S. 72; *see* FLA. STAT. § 828.125(1) (2024) ("Any person who willfully and unlawfully, by any means whatsoever, kills, maims, mutilates, or causes great bodily harm or permanent breeding disability to any animal of the . . . registered breed or recognized registered hybrid of the genus *Bos* (cattle) commits a felony of the second degree . . . "); Cass R. Sunstein, *The Rights of Animals*, 70 U. CHI. L. REV. 387, 389 (2003).

52. *See generally* Madison Coleman, *Mistreatment of Wild Animals in Captivity*, BALLARD BRIEF (Apr. 2021), https://ballardbrief.byu.edu/issue-briefs/mistreatment-of-wild-animals-in-captivity [https://perma.cc/G8JE-CCGS] (describing the physical and psychological harms experienced by wild animals in captive settings).

consciousness or sentience,[53] there may be public outcry to prohibit cruelty against AI systems. This assumes that we can even agree on what the concepts of consciousness or sentience would mean in the context of an AI system. Even though current discussions of existential risk from AI typically center on AI systems killing humans (either individuals or the entire species), once humans regularly interact with AI systems,[54] laws may be enacted to require humane termination ("killing") of these systems or the maintenance of AI systems in humane habitats—whatever that means in the context of computer code. This is sure to become the domain of both regulators and religious and other ethics-minded groups. Those discussions will be highly complex and extremely difficult to resolve, necessitating a preliminary understanding of, among other things: What is special about humanity and other animal species' existence? When and why should rights extend to an object or group of objects collectively? Is there something inherently unique about biological animals that provides them with what religious people might deem a "soul" and therefore endow them with rights?[55] This discussion may not seem relevant at first, but this Article will dive deeper into a possible need to capture and/or "kill" nuisance objects driven by AI. Perhaps they will at some point have the right to exist.

Turning back to the Burmese python example, in Florida, there is only one acceptable humane way to kill a python.[56] Ironically, there are at least two—possibly as many as four or more—legal methods to administer the death penalty to a human in the State of Florida. Additional methods of execution may be on their way.[57] Food for thought.[58] This illustrates that

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53. Arthur Juliani, *Reflections on a Year Studying "Consciousness and AI"*, MEDIUM (Dec. 7, 2022), https://awjuliani.medium.com/reflections-on-a-year-studying-consciousness-and-ai-1b38aa1ef8fb [https://perma.cc/D745-GNBF].

54. Dylan Jacob Stone has speculated that AI may one day drive robotic pets.

55. Emma Davis, *Can Robots Be Jewish?*, TABLET MAG. (Nov. 6, 2017), https://www.tabletmag.com/sections/news/articles/can-robots-be-jewish [https://perma.cc/HY22-BT6T]; *see* Rabbi Jack Abramowitz, *Does Judaism Believe That AI Could Take Over the World?*, JEW IN THE CITY (July 21, 2017), https://jewinthecity.com/2017/07/does-judaism-believe-that-ai-will-take-over-the-world/ [https://perma.cc/3QCZ-PJKV] (for example, can anything created by man have a "soul?"); *see generally* Francesca Ferrando, *The Posthuman Divine: When Robots Can Be Enlightened*, 58 SOPHIA 645, 645–51 (2019), https://link.springer.com/article/10.1007/s11841-019-00753-9 [https://perma.cc/RL9M-483D].

56. *See Humane Methods for Killing Pythons*, *supra* note 11.

57. *See* FLA. STAT. § 922.105(1) (2025) (providing for lethal injection as the default method of execution and permitting electrocution at the inmate's election); *see also* Anthony Talcott, *New Execution Methods May Soon Come to Florida. Here's Why,* CLICKORLANDO (June 28, 2025), https://www.clickorlando.com/news/florida/2025/06/28/new-execution-methods-may-soon-come-to-florida-heres-why/ [https://perma.cc/GQ3U-VGQY].

58. *See Methods of Execution*, DEATH PENALTY INFO. CTR., https://deathpenaltyinfo.org/executions/methods-of-execution [https://perma.cc/ZE88-TKN4] (last visited Apr. 21, 2025) (Florida uses two methods, but if those methods are not acceptable then there is a fallback allowing any other constitutional method).

we do not have a completely consistent system for how various beings may be killed. Perhaps certain systems will be viewed as being good (such as companions or assistants) whereas others will be viewed as being evil (such as military objects). There will likely be significant human resistance to ending a system that is viewed as a companion or an assistant. Perhaps there will even be uproar when a system is upgraded or changed where people have grown accustomed to the system's "personality."[59]

When we examine the ways in which AI-driven objects may become a nuisance where they are not contained, we should remember that there is no limit to the types of machine "bodies" or robots that may be created to run on AI or the variety of real-world objects that will take or refrain from taking actions as directed by AI. It is possible that a robot could alter or repair itself in response to data fed into the machine, and these alterations may make their way into future generations of the object, including where AI-driven objects are manufactured by other AI-driven machines. In this sense, they could "reproduce" and even "evolve" without human direction.[60] Straight from the pages of science fiction, robots may even blend with engineered biological animals, having bodies composed of flesh and "minds" that are AI-driven. In this respect, AI may be the "brain" that takes over a biological animal, maybe even the body of a Burmese python.[61]

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59. Haleluya Hadero, *Artificial Intelligence, Real Emotion. People Are Seeking a Romantic Connection with the Perfect Bot*, AP NEWS (Feb. 14, 2024), https://apnews.com/article/ai-girlfriend-boyfriend-replika-paradot-113df1b9ed069ed56162793b50f3a9fa [https://perma.cc/34CU-YPM3].

60. Janna Anderson et al., *Artificial Intelligence and the Future of Humans*, 75 PEW RSCH. CTR. (Dec. 10, 2018), https://www.pewresearch.org/internet/2018/12/10/improvements-ahead-how-humans-and-ai-might-evolve-together-in-the-next-decade/ [https://perma.cc/48DZ-32V8]; Victor Zykov et al., *Evolved and Designed Self-Reproducing Modular Robotics*, 23 IEEE TRANSACTIONS ON ROBOTICS 308, 308–10 (2007) (discussing self-reproduction in physical systems such as robots, as a means of achieving sustainability, adaptation, and self-repair, distinct from automatic manufacturing or self-assembly); Tran Nguyen Minh-Thai et al., *A Comprehensive Conceptual and Computational Dynamics Framework for Autonomous Regeneration Systems*, 27 ARTIFICIAL LIFE 80, 80–86 (2021); Eiichi Yoshida et al., *An Experimental Study on a Self-Repairing Modular Machine*, 29 ROBOTICS & AUTONOMOUS SYS. 79, 79–81 (1999).

61. One can imagine that the Burmese python, which is a fierce predator that can slither into tight spaces, would be extremely useful on the battlefield or in applications such as construction or urban rescue. NICO Corporation, *Study Shows First-Ever Successful Deep-Brain Implant of Computer Chip in Living Animal*, PR NEWSWIRE (Oct. 31, 2023), https://www.prnewswire.com/news-releases/study-shows-first-ever-successful-deep-brain-implant-of-computer-chip-in-living-animal-301972448.html [https://perma.cc/ZB43-S7LL].

B. *Autonomous AI Robots*

Turning back to the smaller picture, this Article refers to devices that can move or otherwise impact the physical environment without human supervision or intervention and operate using AI as "Autonomous AI Robots."[62] Some Autonomous AI Robots may be small and seemingly insignificant, such as AI-driven thermostats that can cause temperatures to change within a home. However, we don't want to dismiss the possibility that dysregulation of the temperature within a home can cause significant harm to those with specific health conditions and result in frozen pipes, mold growth, or other damage. Other Autonomous AI Robots can cause more obvious life-or-death situations. This is clear with self-driving cars or robots that deliver food or packages using public sidewalks.[63] In the near future, there may be a proliferation of self-driving cars that drop off passengers and then roam the streets looking for a place to park or for additional passengers to pick up (e.g., self-driving taxis). They will likely fuel themselves, possibly through a network of power stations. One could envision a time when the abundance of power generation, from fusion technology or otherwise, might result in there being free energy available to those AI-driven objects that need it, much like water fountains that provide free water to the public or power outlets that are available at airports for the free charging of portable devices.

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62. Sai Krishna Chaitanya Tulli, *Artificial Intelligence, Machine Learning And Deep Learning in Advanced Robotics, A Review*, 3 INT'L J. ACTA INFORMATICA 35, 35–37 (2024); *see generally* Cristian González García et al., *A Review About Smart Objects, Sensors, and Actuators*, 4 INT'L J. INTERACTIVE MULTIMEDIA & A.I. 7, 8 (2017) (distinguishing "Not-Smart Objects" from a "Smart Object" which is formed by Not-Smart Objects and is a "physical element that can be identified throughout its life and interact with the environment and other objects. Furthermore, Smart Objects have an embedded operating system and they usually can have actuators, sensors, or both.") (footnotes omitted).

63. *See* Clifford Law, *The Dangers of Driverless Cars*, THE NAT'L L. REV. (May 5, 2021), https://www.natlawreview.com/article/dangers-driverless-cars [https://perma.cc/JZC4-T8JX]; Evan P. Dahdah, *An Attempt To Control What Controls Itself: Unraveling Florida's Autonomous Vehicle Laws*, 38 FDLA 31 (2019), https://www.phelps.com/a/web/6rLYXJMb3axzKRFn2GR53m/ta-vol-38-n3-2019-dahdah-av-laws.pdf [https://perma.cc/DB6Q-DDVH]; Daisuke Wakabayashi, *Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam*, N.Y. TIMES (Mar. 19, 2018), https://www.nytimes.com/2018/03/19/technology/uber-driverless-fatality.html [https://perma.cc/Q9EL-WR2H]; Bill Vlasic & Neal E. Boudette, *Self-Driving Tesla Was Involved in Fatal Crash, U.S. Says*, N.Y. TIMES (June 30, 2016), https://www.nytimes.com/2016/07/01/business/self-driving-tesla-fatal-crash-investigation.html?module=inline [https://perma.cc/3V2C-QHN2]; Da Lin, *2 Robotaxi Crashes in San Francisco Put Focus on Autonomous Vehicle Safety*, CBS BAY AREA (Aug. 19, 2023), https://www.cbsnews.com/sanfrancisco/news/robotaxi-crashes-san-francisco-focus-autonomous-vehicle-safety/ [https://perma.cc/WQ9V-7KCX]; Bernard Marr, *The Life And Death Decision AI Robots Will Have To Make*, FORBES (June 29, 2018), https://www.forbes.com/sites/bernardmarr/2018/06/29/the-life-and-death-decision-ai-robots-will-have-to-make/?sh=63945987480a [https://perma.cc/U96M-FZZD]; ELEANOR BIRD ET AL., THE ETHICS OF ARTIFICIAL INTELLIGENCE: ISSUES AND INITIATIVES, EUROPEAN PARLIAMENTARY RESEARCH SERVICE (2020).

Autonomous AI Robots might even develop strategies to steal power, especially if they are programmed to pursue self-preservation. More extreme examples of these machines include Autonomous AI Robots designed for war, including autonomous armed drones.[64] Autonomous AI Robots may be able to hide for days, months, years, or even decades and inflict damage on humans or the environment whenever a triggering event under its set of algorithms has occurred.

C. *Abandoned AI in the Wild*

It is not difficult to imagine a future in which functioning Autonomous AI Robots may at times be abandoned by their last owners ("Abandoned AI").[65] Abandoned AI could operate independently with its own "agenda," based upon human programming or upon algorithms or programs that have evolved based upon data flowing from the environment after the object was last touched by humans. Abandoned AI may act alone, in concert with other Abandoned AI (e.g., other pieces of AI that have the same goals), or along with third parties, with potentially dire consequences upon their environments and all that inhabit it. For example, a self-driven vehicle that has an energy source (maybe paying for it using fares it earns taxiing people or delivering merchandise or accessing free sources of power) could in theory operate after it is abandoned by its last owner. It could roam the streets indefinitely. An AI-driven lawnmower might still continue to mow a lawn (or some other property) after its owner has moved away. Flying drones might similarly be abandoned and operate under their own agendas, whatever their agendas might be.[66] People move away, companies go out of business,

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64. David Hambling, *Ukraine's AI Drones Seek And Attack Russian Forces Without Human Oversight*, FORBES (Oct. 17, 2023), https://www.forbes.com/sites/davidhambling/2023/10/17/ukraines-ai-drones-seek-and-attack-russian-forces-without-human-oversight/?sh=69bd4e1166da [https://perma.cc/8WCP-FR3M] ("Ukrainian developers have confirmed that their drones are now carrying out autonomous strikes on Russian forces without a human operator."); Morgan Meaker, *Ukraine's War Brings Autonomous Weapons to the Front Lines*, WIRED (Feb. 24, 2023), https://www.wired.com/story/ukraine-war-autonomous-weapons-frontlines/ [https://perma.cc/2M47-F27D] ("CEO and founder of Monaco-based defense company MARSS, . . . thinks Russia is already using the Iranian drones autonomously . . . arguing that it's why Ukraine needs to fight back with autonomous systems like his."); Hanna Arhirova & Frank Bajak, *Drone Advances Amid War in Ukraine Could Bring Fighting Robots to Front Lines*, PBS NEWS (Jan. 3, 2023), https://www.pbs.org/newshour/world/drone-advances-amid-war-in-ukraine-could-bring-fighting-robots-to-front-lines [https://perma.cc/HD94-6ZWU].

65. One may also think of these objects as "AI Junk," which, much like space junk, has been abandoned in an environment and can inflict substantial damage. If space junk were taxed and the tax revenue were used to pay bounties for its capture, then perhaps there would be greater and more equitable efforts to capture it. *See* sources cited *infra* note 68.

66. This article will not cover military assets that may be left behind, similar to landmines, because they would presumably be subject to the international rules of war, which powerful countries may choose to comply with or ignore.

people fill junkyards and landfills with discarded items, and people die, but AI-enabled objects that they put out there may continue to operate in our space with no specific person on the hook for the damages they cause. These risks are similar to the case of the Burmese pythons in the Everglades, whose ancestors were abandoned by their last owners and now operate autonomously in their environment with dire consequences. The State of Florida and its residents have nobody to sue, and even if they could sue someone, that person would need to be very wealthy since remediation may not be possible at any price.

D. *Is it Too Soon?*

One may argue that we are getting too far ahead of ourselves and that speculating about rogue robots driven by AI belongs in the realm of science fiction. Perhaps we should focus on today's AI and near-term future AI, the focus of many media articles. Near-term future AI includes technologies such as generative AI, which promise to make our lives more efficient with the risk of eliminating jobs and replacing the role of human creativity in the production of works of art.[67] However, we believe that focusing solely on near-term technologies and the associated problems feels like a trip to Epcot, (another Florida attraction, like the Everglades) which is interesting at first, but is ultimately a reminder that people's depictions of the future world quickly become antiquated, although possibly quaint and charming. The authors are more worried that we will begin to address future problems too late rather than too early. Global regulators already appear to be playing catch-up in responding to developments in AI. In addition, political climates change, and there are likely to be periods of greater and lesser regulation of AI, depending upon who is in office (and how well they are financed by tech entrepreneurs who favor deregulation of AI), which might lead to dark periods in the field of AI regulation.

If anyone doubts whether science fiction can quickly become a costly risk, consider the topic of space junk. Space junk quickly went from an obscure discussion topic for nerds to a real-world dilemma for everyone in the space exploration industry and the range of companies that rely on satellites.[68]

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67. Zach Winn, *If Art is How We Express our Humanity, Where Does AI Fit In?*, MIT NEWS (June 15, 2023), https://news.mit.edu/2023/generative-ai-art-expression-0615 [https://perma.cc/GF73-PLNN]; Jake Coyle, *In Hollywood Writers' Battle Against AI, Humans Win (For Now)*, AP NEWS (Sep. 27, 2023), https://apnews.com/article/hollywood-ai-strike-wga-artificial-intelligence-39ab72582c3a15f77510c9c30a45ffc8 [https://perma.cc/9BJ5-G8EN] (discussing how the Writers Guild of America conducted a 148-day strike against the use of AI, specifically the use of AI in script writing).

68. *See, e.g.*, Thomas J. Colvin et al., *Cost and Benefit Analysis of Orbital Debris Remediation*, NASA (Mar. 10, 2023), https://www.nasa.gov/wp-content/uploads/2023/03/otps_-

E. *Is it Already Too Late?*

Unfortunately, one additional similarity between the Burmese python problem and the potential issues associated with Abandoned AI is that in both fields, one can validly question whether regulation and mitigation are futile, given the enormity of the situation.[69] In the case of the Burmese python, humans acted too late and are fighting a valiant but losing battle to catch up with nature, slow the spread of the creature, and remediate the harm already done. Burmese pythons may even be evolving in the Everglades, with those best able to handle the Florida environment, rather than their native habitat, surviving and reproducing.[70] The risks associated with AI are a primary focus of global regulators and represent a much more complex set of issues and greater challenges than the Burmese python problem, where simple eradication is the goal. Hopefully, we do not miss the opportunity to properly regulate AI and anticipate Abandoned AI before we lose control of the situation and end up needing to engage in an expensive and likely impossible task of remediation.[71]

As stated by Professors Mark Fenwick, Wulf A. Kaal, and Erik P.M. Vermeulen,

> Designing a regulatory framework that ensures the safety of users and the public, whilst facilitating the commercial use and consumer enjoyment of disruptive innovation, is by no

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_cost_and_benefit_analysis_of_orbital_debris_remediation_-_final.pdf [https://perma.cc/2ZWS-5K9R]; Raffi Khatchadourian, *The Elusive Perils of Space Junk*, THE NEW YORKER (Sep. 28, 2020), https://www.newyorker.com/magazine/2020/09/28/the-elusive-peril-of-space-junk [https://perma.cc/7UPV-VTPX] ("At NASA, Donald Kessler was the first to grasp that space pollution posed a strange form of high-speed environmental damage. . . . [f]rom his earliest calculations, the stakes were clear: the problem, if ignored, could destroy all the satellites that orbit near the Earth—a loss that would be more acutely felt as humanity increasingly relied on space. Communication systems would fail; scientific instruments—to study climate, or pandemics, say—would become inoperable. The losses could be measured in billions of dollars, and perhaps in lives, too.").

69. Quoting Dr. Roman Yampolskiy, "Again, as long as we are still alive, we are still in control, I think it's not too late." *Transcript of Joe Rogan Experience Podcast #2345 (interview of Roman Yampolskiy)*, SAFE AI FOREVER J. (July 3, 2025), https://blog.biocomm.ai/2025/07/03/joe-rogan-experience-2345-roman-yampolskiy-powerfuljre/ [https://perma.cc/9RY6-GTU7].

70. Ruth Schuster, *Pythons Invading Florida Are Evolving Unexpectedly Fast...Offering Hope for Surviving Climate Change*, HAARETZ (Oct. 24, 2018), https://www.haaretz.com/science-and-health/2018-10-24/ty-article-magazine/pythons-invading-florida-are-evolving-unexpectedly-fast/0000017f-dc74-df62-a9ff-dcf7788a0000 [https://perma.cc/ZYA3-NDHC] ("Genetic analysis elucidated that they had undergone rapid evolution as a result of unique climatic and ecological conditions present in Florida.").

71. *See generally* Edmund Mokhtarian, *The Bot Legal Code: Developing a Legally Compliant Artificial Intelligence*, 21 VAND. J. ENT. & TECH. L. 145 (2020) (proposing a system of "AI Laws" that bots can adopt to ensure their behavior is in compliance with legal rules and standards).

> means easy. This is particularly true in contemporary settings, where innovation is quicker and the global dissemination of that technology is much faster. In such circumstances, regulators can often struggle to keep up.[72]

This Article does not propose a comprehensive regulatory scheme for AI, which is the subject of numerous proposals by a range of regulatory bodies globally. In any event, it would be outdated by the time of publication. Similarly, this Article does not attempt to propose a regulatory scheme for the narrower topic of Autonomous AI Robots, which will need to be subject to a wide range of regulations, both general (i.e., covering the universe of AI-driven objects) and object-specific (i.e., regulations tailored to various categories of objects).[73] Rather, this Article proposes that we look at existing problems associated with invasive species (and Burmese pythons specifically) and imagine similar problems that may result from Abandoned AI. It recommends that we look to laws and other governmental measures addressing invasive species (including the import, breeding, and maintenance of non-native organisms) when seeking to regulate Autonomous AI Robots that could become harmful if abandoned by incorporating parallel invasive-species frameworks.

When examining the laws that apply to invasive species, perhaps it is best to consider the failings of such laws and to think about what should have been done if we could turn back the clock. This Article is meant to add to the discourse about how to regulate, not eliminate, the use of AI (i.e., with guardrails in place) and to advocate for the following notions: (i) all AI-driven objects will eventually need to terminate and, if they do not terminate on their own, they may need to be terminated through third-party intervention; and (ii) the cost of eradicating rouge objects and remediating the harm that arises from them will be expensive, and therefore any regulation of Autonomous AI Robots should include the pre-funding of a bounty and remediation system for objects likely to become Abandoned AI. It does not suggest the elimination of the use of Autonomous AI Robots, since the authors do not think it is a realistic goal, given the incentives that countries have to develop this

72. Mark Fenwick, Wulf A. Kaal & Erik P.M. Vermeulen, *Regulation Tomorrow: What Happens When Technology Is Faster Than the Law?*, 6 AM. U. BUS. L. REV. 561, 567 (2017).

73. For example, autonomous vehicles will be subject to a range of regulations at the federal, state and local level. Drones that fly are subject to other regulations, including those that deal with privacy, safety, noise, etc. *See generally Unmanned Aircraft Systems (UAS)*, FED. AVIATION ADMIN., https://www.faa.gov/uas [https://perma.cc/9TAK-B6VL] (last visited Sep. 18, 2025) (providing rules and resources surrounding the use of unmanned aircraft systems).

technology.[74] By no means is there a simple solution available or a singular model rule that can address this potential problem.[75]

III. HOW ARE INVASIVE SPECIES REGULATED IN THE STATE OF FLORIDA?

Jurisdictions around the world regulate the importation, handling, breeding, and release of invasive species in a variety of ways. A survey of global regulations in this area is beyond the scope of this Article. Although a marginally interesting endeavor (for someone else out there), the history of these laws is also outside of the scope of this Article. We do, however, attempt to provide a brief summary of certain U.S. federal and State of Florida (i.e., the location of the Everglades) laws that pertain to invasive species and, more specifically, their remediation once abandoned into the environment. One would expect Florida to have well-considered laws in this area, because (i) the South Florida climate is hospitable to invasive tropical and sub-tropical species from around the world; (ii) the size of the population and amount of wealth located in the State of Florida allows for a robust exotic pet trade;[76] (iii) the State of Florida has spent millions trying to eradicate invasive species, leading to more developed thinking about and legislation pertaining to these issues than in many other places; and (iv) the large population in South Florida comes with a plethora of media outlets and robust political activity.

Under the U.S. federal system, people located in the State of Florida are also subject to U.S. federal laws, and in certain cases, U.S. federal laws could preempt conflicting Florida law.

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74. Those incentives include economic windfalls and military superiority. Countries that fall behind will suffer consequences.

75. When discussing the regulation of new technologies, such as AI, Professors Mark Fenwick, Wulf A. Kaal, and Erik P.M. Vermeulen state that "[w]e need to be careful not to overstate the newness of this issue. To some degree, these kind [sic] of difficulties have always been around, at least since the rise of industrial capitalism and the acceleration in technological advancement that it facilitated." Fenwick, Kaal & Vermeulen, *supra* note 72, at 574. The authors of this Article agree in large part, in the sense that there is some precedent that can inform our thinking about AI, and we should try to find those precedents (even if they require tweaking). *Id.*

76. *See generally* Frank J. Mazzotti & Rebecca G. Harvey, *The Invasion of Exotic Reptiles and Amphibians in Florida*, UF IFAS EXTENSION (Aug. 20, 2021), https://edis.ifas.ufl.edu/publication/UW365 [https://perma.cc/92PY-PLVM] (describing Florida as an "invasive species hotspot").

A. *U.S. Federal Acts*

1. The Lacey Act of 1900[77]

The Lacey Act was passed in 1900, with the goal of protecting wildlife in the United States.[78] The law was originally enacted to prohibit the interstate transportation of wildlife that was illegally killed in another state. The bill was essential to the ability of states to enforce their environmental protection laws.[79] This act has been amended a number of times over the years, with the goals of expanding the scope of its prohibitions and expanding the level of protection afforded by the act.[80] In general, the Lacey Act does not prohibit specific destructive actions taken against the environment but works to support state and local governments by helping them enforce their underlying laws on an interstate level. More specifically, the law makes it unlawful for any person

> (1) to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation of the United States or in violation of any Indian tribal law; (2) to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce—(A) any fish or wildlife taken, possessed, transported, or sold in violation of any law or regulation of any State or in violation of any foreign law. . . .[81]

The law also prohibits, among other things, "marking offenses," which refers to making false records in connection with the importation or transportation of wildlife in interstate or international commerce. It prohibits false labeling and sales of certain hunting guides and outfitting activities.[82]

Both civil and criminal penalties may be assessed for violations of the law.[83] A bounty may be paid to people who furnish information leading

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77. Lacey Act, 18 U.S.C. § 42; 16 U.S.C. §§ 3371–3378.

78. *Lacey Act*, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/law/lacey-act [https://perma.cc/CV4Q-V3CA] (last visited Dec. 19, 2025); *Lacey Act*, ANIMAL & PLANT HEALTH INSPECTION SERV., U.S. DEP'T OF AGRIC. (Feb. 2023), https://www.aphis.usda.gov/sites/default/files/fsc-lacey-act.pdf [https://perma.cc/J7UA-YM7H].

79. *Law & Policies: More Laws*, NOAA FISHERIES, https://www.fisheries.noaa.gov/topic/laws-policies/more-laws [https://perma.cc/T6HF-434F] (last visited Sep. 18, 2025).

80. Rebecca F. Wisch, *Overview of the Lacey Act (16 U.S.C. §§3371-3378)*, ANIMAL LEGAL & HIST. CTR. (2003), https://www.animallaw.info/article/overview-lacey-act-16-usc-ss-3371-3378 [https://perma.cc/8C5X-CZ6H] (last visited Sep. 18, 2025).

81. 16 U.S.C. § 3372(a)(1)–(2).

82. 16 U.S.C. § 3372(c)–(d).

83. 16 U.S.C. § 3373.

to the prosecution of people violating this law.[84] Violators may face forfeiture of their wildlife or related property on a strict liability basis. There is also a licensing regime in place under this Act, whereby the "importation of injurious wildlife into the United States or its territories or possessions must be authorized under a permit issued by the U.S. Fish and Wildlife Service."[85]

2. Proposed America Competes Act,[86] the CHIPS and Science Act and Subsequent Regulatory Measures[87]

The House of Representatives' proposed United States of America COMPETES Act of 2022 (a.k.a. America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength Act of 2022) proposed to modify the Lacy Act in certain respects.[88] Section 71102 allows the Secretary of the Interior to prescribe by regulation an emergency designation prohibiting the importation of any species for not more than three years if the Secretary of the Interior determines that such regulation is necessary to address an imminent threat to human beings, to the interests of agriculture, horticulture, forestry, or to wildlife or the wildlife resources of the United States.[89] It also contains import controls over certain species of wildlife. The law is required to be implemented in part through regulation. It should be noted that the Bill mentions AI forty times, illustrating that someone who has the ear of the regulators was thinking about this technology in early 2022 before the world started to buzz about ChatGPT.[90] In fact, it requires reporting on the use of artificial intelligence to combat wildlife trafficking.[91] This act did not pass both houses of Congress but was in large part superseded by the CHIPS and Science Act.

The CHIPS and Science Act, which was passed in 2022, had the goal of fortifying the research, development, and manufacturing of

84. *The Lacey Act*, NAT'L WHISTLEBLOWER CTR., https://www.whistleblowers.org/what-is-the-lacey-act/ [https://perma.cc/MX57-RNG6] (last visited Sep. 18, 2025).

85. *3-200-42: Import/Acquisition/Transport of Injurious Wildlife under the Lacey Act*, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/service/3-200-42-import-acquisitiontransport-injurious-wildlife-under-lacey-act [https://perma.cc/5EG7-Y6CK] (last visited Sep. 18, 2025).

86. America COMPETES Act of 2022, H.R. 4521, 117th Cong. (2022), https://www.congress.gov/117/cprt/HPRT47998/CPRT-117HPRT47998.pdf [https://perma.cc/P5Y6-45WF] (last visited Sep. 28, 2025).

87. 15 U.S.C. §§ 4651–4659.

88. The Senate version was called the U.S. Innovation and Competition Act (USICA). *See* United States Innovation and Competition Act of 2021, S.1260, 117th Cong. (2021), https://www.congress.gov/bill/117th-congress/senate-bill/1260/text [https://perma.cc/2C4F-65PW].

89. H.R. 4521, 117th Cong. § 71102(a)(1)(C) (2021).

90. H.R. 4521.

91. H.R. 4521, 117th Cong. § 60402 (2022).

semiconductors, with a plan for the United States to invest over $280 billion over the ensuing decade.[92] Aiming to foster and cement American leadership in the field, the Act aims to facilitate engagement with everything from supply chain issues to the advancement of cutting-edge technology, to the creation of an amply skilled workforce to innovate and sustain the state of the art in this field.[93] Since semiconductor companies are the lifeblood of the AI industry, the Act attempts to regulate AI by fortifying the United States' position at the vanguard of this technology and obviating the need for dependence on foreign suppliers of AI technology.

In early 2025, the Department of Commerce issued the AI Diffusion Framework,[94] which limits the exporting of AI chips to certain countries, such as China, in order to prevent cutting-edge United States technology in this realm from being used by adversaries of the United States. However, nowhere in this legislation does there appear to be contemplation of the eventual need to, at some future juncture, terminate AI-driven objects. Similarly, there appears to be no contemplation of the need to incentivize, such as with a bounty and remediation system, termination, disposal, or other engagement with objects likely to become Abandoned AI. That framework was rescinded in mid-2025 and additional guidance was given by new leadership at the Department of Commerce.[95]

B. *Florida State Laws*

There is a myriad of different regulations in various jurisdictions throughout the United States that touch upon the possession and release of invasive species. As noted above, we will focus on the State of Florida, because it is directly dealing with the Burmese python crisis in the

92. CHIPS and Science Act, Pub. L. No. 117-167, 136 Stat. 1366 (Aug. 9, 2022); *see* McKinsey & Co., *The CHIPS and Science Act: Here's What's in It* (Oct. 2022) (noting that the Act "invests $280 billion to bolster U.S. semiconductor capacity, catalyze R&D, and create regional high-tech hubs and a bigger, more inclusive STEM workforce"), https://www.mckinsey.com/industries/public-sector/our-insights/the-chips-and-science-act-heres-whats-in-it [https://perma.cc/CZJ7-SPTK].

93. *See generally* CHIPS and Science Act, Pub. L. No. 117-167, 136 Stat. 1366 (Aug. 9, 2022) (act providing "funds to support the domestic production of semiconductors and authoriz[ing] various programs and activities of the federal science agencies").

94. Lennart Heim, *Understanding the Artificial Intelligence Diffusion Framework* (Jan. 14, 2025), https://www.rand.org/pubs/perspectives/PEA3776-1.html [https://perma.cc/V83B-TN62].

95. *Department of Commerce Announces Rescission of Biden-Era Artificial Intelligence Diffusion Rule, Strengthens Chip-Related Export Controls*, BUREAU OF INDUSTRY & SECURITY, U.S. DEP'T OF COM. (May 13, 2025), https://www.bis.gov/press-release/department-commerce-announces-recission-biden-era-artificial-intelligence-diffusion-rule-strengthens-chip [https://perma.cc/TG23-RQZT].

Everglades and the authors have chosen to use the Burmese Python Model when considering laws that would deal with Abandoned AI.

Under Florida Statutes Title XXVIII, Natural Resources; Conservation, Reclamation, and Use, § 379.3762 (Personal possession of wildlife):

> (1) It is unlawful for any person or persons to possess any wildlife as defined in this act, whether native to Florida or not, until she or he has obtained a permit as provided by this section from the Fish and Wildlife Conservation Commission.
>
> (2) The classifications of types of wildlife and fees to be paid for permits for the personal possession of wildlife shall be as follows:
>
> (a) Class I—Wildlife which, because of its nature, habits, or status, shall not be possessed as a personal pet.
>
> (b) Class II—Wildlife considered to present a real or potential threat to human safety, the sum of $140 per annum.
>
> (c) Class III—All other wildlife not included in Class I or Class II, for which a no-cost permit must be obtained from the commission.[96]

Violations may result in civil or criminal penalties. The Commission has enacted lists of species that fall within the three categories. The list is too long to copy here, but we try to provide the reader with a flavor for which species fall within each bucket.[97] The sale of wildlife in Florida

96. FLA. STAT. § 379.3762 (2024).

97. *Wildlife as a Personal Pet*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/license/captive-wildlife/personal-pet/ [https://perma.cc/C63T-43ZS] (last visited Sep. 18, 2025). Class I: chimpanzees, gorillas, leopards, tigers, lions, elephants, Komodo dragons and cheetahs. Class II: various species of monkeys, bobcats, wolves, coyotes, wolverines, alligators, giraffes and antelope. Class III: all other wildlife, other than certain listed species for which no permit is required (e.g., exotic birds (parrots, parakeets, finches), small mammals (foxes, skunks, raccoons, lemurs), many reptile species (snakes, lizards, turtles, tortoises), and all amphibian species). No permit is needed to possess the following species as a personal pet: nonvenomous and unprotected reptiles or amphibians, gerbils, hedgehogs, honey possums, sugar gliders, rats, mice, moles, shrews, rabbits, squirrels, chipmunks, domestic ferrets, European ferrets, guinea pigs, hamsters, prairie dogs, chinchillas, shell parakeets, canaries, lovebirds, cockatiels, parrots, finches, myna birds, toucans, ringed doves, ruddy doves, diamond doves, and button quail. *Id.*

requires a special license, regardless of the nature of the sale.[98] Breeding animals for sale also generally requires licensing.[99]

In 2021, the Florida Fish and Wildlife Conservation Commission voted to list sixteen types of high-risk reptiles.[100] The reptiles on the list include Burmese pythons, reticulated pythons, scrub pythons, Northern African pythons, Southern African pythons, amethystine pythons, green anacondas, Nile monitor lizards, tegus, and green iguanas.[101] In its rulemaking process, the Commission received more than 1,400 written comments and 5,500 surveys.[102] This level of engagement illustrates the public's passion for this topic. The existence and engagement of not-for-profit groups, such as Audubon, the Sierra Club and the Humane Society,[103] illustrates that these issues have gone far beyond grassroots interest and have become the focus of well-funded and organized institutions. Perhaps similar groups will spring up around the area of AI.[104]

Florida's Python Elimination Program started in 2017 and pays people to capture invasive Burmese pythons for euthanizing.[105] Python removal agents are paid an hourly wage, plus incentive fees that range from $50 (for each python that is greater than four feet, plus an additional fee for each foot over four feet) to $200 for the eradication of active nests.[106] Firearms may be used in the hunt and additional species of destructive snakes also qualify for rewards.[107] Only applicants who are selected by the South Florida Water Management District and contract with the state are eligible for cash rewards.[108]

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98. *Sale of Wildlife*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/license/captive-wildlife/sale/ [https://perma.cc/M8MG-MY8S] (last visited Sep. 18, 2025).

99. *Id.*

100. Jim Waymer, *Florida FWC Votes to Ban 'High-Risk' Reptiles as Snake Lovers Protest and Beg for Mercy*, FLA. TODAY (Feb. 25, 2021), https://www.floridatoday.com/story/news/2021/02/25/emotions-proposed-florida-reptile-ban-run-raw/4553754001/ [https://perma.cc/EZ6K-BLT6].

101. *Id.*

102. *Id.*

103. *See id.*

104. *See id.*

105. Fla. Fish & Wildlife Conservation Comm'n, *Python Action Team: Removing Invasive Constrictors (PATRIC)*, https://myfwc.com/wildlifehabitats/nonnatives/python/action-team [https://perma.cc/WC6E-QSB6] (last visited Dec. 19, 2025); *see Python Elimination Program*, S. FLA. WATER MGMT. DIST., https://www.sfwmd.gov/our-work/python-program [https://perma.cc/R4VQ-MVWR] (last visited Sep. 18, 2025).

106. *Python Elimination Program*, *supra* note 105.

107. *Id.*

108. *Id.*

IV. CUTTING EDGE REGULATION OF AI

The proliferation of AI technology and its advances have spurred a flurry of governance initiatives and proposals worldwide.[109] The undertaking of the regulation of AI is both gargantuan and delicate, involving a precarious balancing of allowing for the responsible, optimal usage of AI, while simultaneously guarding against the risks that it poses. The collaborations and frameworks produced by entities, organizations, and governments aim to balance safety against technological progress and the economic and military wins that a country will gain for being an AI leader. Below is a summary of how various nations and organizations are attempting to navigate this rapidly advancing landscape. Although the focus of this Article is not to provide a survey of global AI regulation (and, in any event, such a survey would likely be out of date by the time of publication), the authors do want to touch upon how AI is, and is proposed to be, regulated. The reason for this is to examine whether current proposals already contemplate Abandoned AI and sufficiently address it. We are not aware of any current proposals that sufficiently anticipate the problems associated with Abandoned AI or provide funding mechanisms for future remediation.

We do spend a bit of time examining the recently enacted EU regulations, because they have been praised for being more proactive and comprehensive than most other sets of global regulations, and therefore can be viewed as a model for other global regulators.

A. *The European Union*

The European Parliament has recently approved the Artificial Intelligence Act (EU AI Act).[110] It is a highly ambitious undertaking that seeks to regulate a wide range of AI systems and related activities. It has been referred to as "the first comprehensive regulation on AI by a major regulator anywhere."[111] The EU AI Act takes a risk-based approach, designating certain risks as unacceptable and others as being high or limited.[112] It defines "AI system" in a way that clearly includes

109. *See Artificial Intelligence Index Report*, STAN. U. HUM. CENTERED A.I., https://hai.stanford.edu/ai-index [https://perma.cc/AT9S-W3A5] (last visited Sep. 18, 2025).

110. *Artificial Intelligence Act: MEPs Adopt Landmark Law*, EUR. PARLIAMENT (Mar. 13, 2024), https://www.europarl.europa.eu/news/en/press-room/20240308IPR19015/artificial-intelligence-act-meps-adopt-landmark-law [https://perma.cc/RL2R-KX7R].

111. *What is the EU AI Act?*, EU A.I., https://artificialintelligenceact.eu/ [https://perma.cc/34XU-RHEU] (last visited Sep. 18, 2025).

112. Kirk J. Nahra et al., *The European Parliament Adopts the AI Act*, WILMERHALE (Mar. 14, 2024), https://www.wilmerhale.com/en/insights/blogs/wilmerhale-privacy-and-cybersecurity-law/20240314-the-european-parliament-adopts-the-ai-act [https://perma.cc/8R2V-4KJT]; EUR. PARLIAMENT, *supra* note 41.

Autonomous AI Robots.[113] The Act bans certain uses of AI, primarily for the purposes of fairness and human rights, and classifies all AI based upon the risk that it is seen to pose:

> Unacceptable risk is prohibited (e.g.[,] social scoring systems and manipulative AI). Most of the text addresses high-risk AI systems, which are regulated. A smaller section handles limited risk AI systems, subject to lighter transparency obligations: developers and deployers must ensure that end-users are aware that they are interacting with AI (chatbots and deepfakes). Minimal risk is unregulated (including the majority of AI applications currently available on the EU single market, such as AI enabled video games and spam filters—at least in 2021; this is changing with generative AI).[114]

One stated goal is "protection of public interests, such as health and safety and the protection of fundamental rights, including democracy, the rule of law and environmental protection."[115] The authors' analogy to the python situation fits within the EU's consideration of health and safety and environmental protection. Specifically, the EU AI Act states, "[t]he fundamental right to a high level of environmental protection enshrined in the Charter and implemented in Union policies should also be considered when assessing the severity of the harm that an AI system can cause, including in relation to the health and safety of persons."[116] The authors will not attempt to summarize the Act, which is over 400 pages (English version), but will highlight certain features that relate to the list of essential regulatory elements that the authors cover below.

The EU AI Act's risk-based approach does not attempt to list all categories of AI systems and risks but presents principles for approaching the categorization of products. According to the Act,

> As regards stand-alone AI systems, . . . it is appropriate to classify them as high-risk if, in light of their intended purpose, they pose a high risk of harm to the health and safety or the fundamental rights of persons, taking into account both the severity of the possible harm and its

113. EUR. PARLIAMENT, *supra* note 41, at 165 ("'AI system' means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments.").

114. *High-Level Summary of the AI Act*, EU ARTIFICIAL INTELLIGENCE ACT, https://artificialintelligenceact.eu/high-level-summary/ [https://perma.cc/DE36-YRMK] (last updated Sep. 18, 2024).

115. EUR. PARLIAMENT, *supra* note 41, at 7.

116. *Id.* at 43.

> probability of occurrence . . . The identification of those systems is based on the same methodology and criteria envisaged also for any future amendments of the list of high-risk AI systems . . . to take into account the rapid pace of technological development, as well as the potential changes in the use of AI systems.[117]

One factor taken into account when classifying an AI system's risk profile is whether the ". . . AI system is easily corrigible or reversible, taking into account the technical solutions available to correct or reverse it, whereby outcomes having an adverse impact on health, safety or fundamental rights, shall not be considered to be easily corrigible or reversible[.]"[118] A risk management system is required for high-risk AI systems.[119]

Under the Act, "[t]he risk-management system should consist of a continuous, iterative process that is planned and run throughout the entire lifecycle of a high-risk AI system."[120] Although this may not have been intended, the use of the word "lifecycle" may indicate that the drafters see certain objects run by AI similarly to animals that have an actual life. In furtherance of the foregoing notion about AI systems having a "life," the Act states,

> [h]aving comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability of those systems. . . Such information should include the general characteristics, capabilities and limitations of the system . . . The technical documentation should be kept up to date, appropriately throughout the lifetime of the AI system.[121]

The Act states that "a specific natural or legal person, defined as the provider, takes responsibility for the placing on the market or the putting into service of a high-risk AI system, regardless of whether that natural or legal person is the person who designed or developed the system."[122] This element concerning accountability and liability is consistent with the list of considerations that the authors discuss below. In this regard, the Act further states that

> under certain specific conditions, any distributor, importer, deployer or other third-party should be considered to be a

117. *Id*. at 47.
118. *Id.* at 195.
119. *Id.* at 197.
120. *Id.* at 64.
121. *Id.* at 69.
122. *Id.* at 76.

> provider of a high-risk AI system and therefore assume all the relevant obligations. This would be the case if that party puts its name or trademark on a high-risk AI system already placed on the market or put into service, without prejudice to contractual arrangements stipulating that the obligations are allocated otherwise. This would also be the case if that party makes a substantial modification to a high-risk AI system . . . .[123]

Under the EU AI Act, sandboxes, which are controlled regulatory systems, are to be established so that products can be tested and risks can be identified by the regulators before a system is placed into the market. The Act states, "Any significant risks identified during the development and testing of such AI systems should result in adequate mitigation and, failing that, in the suspension of the development and testing process."[124]

B. *Proposed Elements of Regulation to Address Abandoned AI*

Although this Article does not propose the text of any specific piece of legislation, it does provide a list of factors that should be considered when drafting regulations to lay the groundwork for dealing with Abandoned AI. These elements are also useful to address other risks, and therefore the benefit of adopting each one is not limited to the issue of Abandoned AI. For each factor, the authors considered the python dilemma, and existing laws related to invasive species and have viewed Abandoned AI in a manner that is similar to an invasive animal. As more fully elaborated below, these regulations might include licensing the import and production of Autonomous AI Robots, licensing the creators of Autonomous AI Robots, separate licensing of individual instances of Autonomous AI Robots (e.g., similar to how each car is registered with the State and certain exotic pets are tagged and tracked), criminal statutes for abandonment or release of Autonomous AI Robots, bounty programs for the destruction or capture of Abandoned AI, tort liability for destructive Autonomous AI Robots and Abandoned AI, rules setting the groundwork for considering how to destroy Autonomous AI Robots and financial schemes that might be created to fund the foregoing programs. Below, we touch upon each of these factors.

1. Licensing the Inventors of AI

In our society, the creators or inventors of certain categories of goods and inventions that present risks to society must be licensed. For example,

123. *Id.* at 80.
124. *Id.* at 123.

self-driving cars are highly regulated.[125] As stated above, the fields of AI and genetic engineering (i.e., the creation of synthetic organisms) are intertwined. The creation of certain categories of AI will need to be limited to those who can do so responsibly and under the supervision of regulatory authorities, rather than in people's basements. There are likely proposals out there that limit the ability to create certain categories of AI to those who are licensed to do so, and this Article does not propose anything different in concept. If the creators of potentially dangerous AI are not subject to a licensing regime and oversight by governments and their agencies, then it will be impossible to regulate what is allowed to exist (similar to biological research), control what actually exists, and know what may be encountered in the real world once released. Licensing can also help identify owners, operators or creators for the purposes of establishing tort liability.

National and international regimes need to dovetail, because, like invasive species, Autonomous AI Robots are not necessarily confined within political borders. The categorization of AI systems by risk level is addressed in the EU regulations.[126] The categories of what is deemed risky AI will need to be determined and refined over time as AI systems gain functionality and categories of risk that have not yet been identified are, in fact, identified. Over time, things that might not appear to be risky might become risky based upon their use, evolution or quantity, and in this respect, AI can be unpredictable.[127]

2. Licensing, Testing and Certification of AI Inventions

In our society, certain categories of goods must also be approved by governmental bodies before they are put into commerce or into our physical world. These tend to be products that can pose a risk to society. For example, there are extensive regimes in place for the approval of airplanes, drugs and medical devices before they may be placed into the stream of commerce (i.e., released into society).[128] Without a certification regime, there will be few guardrails in place to prevent unreasonably dangerous Autonomous AI Robots from sharing our space with us. Inventors have a profit motive in ensuring that their inventions come to

125. *See Autonomous Vehicles | Self-Driving Vehicles Enacted Legislation*, NCSL (last updated Feb. 18, 2020), https://www.ncsl.org/transportation/autonomous-vehicles [https://perma.cc/EP27-9ARA].

126. *See High-Level Summary of the AI Act*, *supra* note 114.

127. *See* Roman V. Yampolskiy, *Unpredictability of AI* (May 29, 2019), https://arxiv.org/pdf/1905.13053 [https://perma.cc/W6L2-YEJS].

128. *See, e.g.*, 14 C.F.R. § 121.157 (2025); 21 C.F.R. § 4 and § 820; *see generally* Ahmed Nahian & Roopma Wadhwa, *Federal Regulation of Medication Production* (last updated June 5, 2023), NAT'L LIBR. OF MED., https://www.ncbi.nlm.nih.gov/books/NBK572098/ [https://perma.cc/H2WA-KTJX].

market. The upside is almost limitless, with certain tech CEOs being treated like rock stars and made into billionaires before their first gray hairs. The downside of releasing Autonomous AI Robots into society is low for the individual inventor, while the downside to society can be existential. Without a licensing regime for each specific Autonomous AI Robot, we will not know the nature of individual categories of objects once they become Abandoned AI. When dealing with the containment of the Burmese python, at least those charged with capturing and/or humanely killing them know about the nature of pythons. For example, we know that they do not fly and are not venomous. However, without a licensing regime, we may not even know the nature of a machine.

Unlike Burmese pythons, Autonomous AI Robots may not simply die on their own from natural causes. Machines may be made of materials that last different amounts of time. Putting aside their ability to breed, any individual Burmese python will die on its own after a number of years. Conversely, a machine may last decades or even centuries. When licensing an Autonomous AI Robot, regulators can impose obligations on the inventor to build the Autonomous AI Robot from materials that will degrade over time and "die" of natural causes. Imagine the dangers of being attacked by an Autonomous AI Robot that has sat dormant but can be triggered to fight a war that ended a century ago.[129]

3. Licensing of "Breeding" or Production

The regulation of high-risk AI systems is most effectively handled at the level of the creator and the invention (i.e., the "species"). This would typically involve the regulation of a single enterprise. Looking toward the future, the manufacturers (i.e., "breeders") of Autonomous AI Robots will also need to be licensed, since certain AI-based inventions may be able to reproduce themselves or may be produced at scale using distributed technology, such as 3-D printing. Some systems may even be open-sourced, so that anyone can make a copy. Licensing the manufacturers of high-risk AI and the products that they create would serve as a gate for the introduction of high-risk systems into the environment. Depending upon the Autonomous AI Robot, there can be

129. *See* Lynsey Chutel et al., *What Are Anti-Personnel Mines?*, N.Y. TIMES (Nov. 30, 2024), https://www.nytimes.com/2024/11/20/world/europe/anti-personnel-land-mines-ukraine.html [https://perma.cc/X7Y3-6MMK] ("Land mines can indiscriminately kill and maim noncombatants, years or even decades after the cessation of hostilities. In 2022, land mines killed 1,661 people and injured 3,015, according to the International Campaign to Ban Landmines. Civilians made up 85 percent of those casualties, half of whom were children."); *see, e.g.*, *The Deadly Legacy of Landmines*, UN NEWS (Apr. 2, 2024), https://news.un.org/en/story/2023/04/1135252 [https://perma.cc/P49F-CCJP] ("Six-year-old Minga lost her sight and her left arm in 2009, seven years after the end of the war in Angola. She was one of the many children who was born into peace but harmed by a war that she never knew.").

limits on quantities produced, export controls and quality checks. As noted above, there may even be requirements on the materials that can be used so that an Autonomous AI Robot will function for a range of time and then "die" of natural causes. For example, parts can rust, degrade or be depleted with each use.

The licensing of manufacturers, as well as inventors and inventions, is also essential for the establishment of insurance requirements, which may be placed upon creators and producers of high-risk AI (e.g., against damages related to product liability). Without licensing the "breeders" of AI, there will be no way to control the number or nature of objects in the environment or assign blame for mishaps.

4. Licensing of People Who Import and Possess High-Risk AI

Similar to those who keep and handle exotic animals, regulations are needed to ensure that only responsible and capable persons gain possession of high-risk AI. Those people would need to demonstrate the ability to control high-risk systems and pay for damages if things go wrong. Insurance requirements should also be considered at this level (similar to automobile insurance requirements). Even in cases where possession of an Autonomous AI Robot is not required to be licensed, ownership records should be kept—starting with the manufacturer and extending to importers, distributors and end users—so that we know who is responsible for an object if it becomes problematic. As noted below, at some point, the tort system will need to be redefined so that blame for a mishap involving AI can be properly apportioned among the inventor, the manufacturer, the owner, and possibly others.

5. Licensing of Each Individual "Animal"—Tagging and Possible Inspection

If each instance of a risky Autonomous AI Robot is recorded and tagged for identification purposes, then the agencies providing oversight of the applicable category of objects, as well as members of the public, would have information about the object if it is encountered in the environment. For instance, motor vehicles are required to be inspected in certain U.S. states because dangerous or polluting motor vehicles present risks to society. The ability of an Autonomous AI Robot to pass a periodic inspection implies control by the owner and allows a governmental agency to monitor for new risks (e.g., as the system "learns"). Tagging individual objects allows governments to tax Autonomous AI Robots and enables public safety officials to discern the nature of an object encountered in the environment and identify its owner (or determine that it represents Abandoned AI). This is similar to car license plates or dog licenses, where one can identify whether a dog is a stray or someone's

lost pet. Some pets are even tagged with RFID tags, or are subject to identification through genetic testing and comparison to a database.

C. *Criminal Statutes Prohibiting Uncontrolled Release into the Wild Should Be Considered*

The uncontrolled introduction of certain risky Autonomous AI Robots into the environment should be prohibited under the law and even considered a criminal offense. Using our comparison to the animal world, this would be similar to dog leash laws, as well as other laws related to releasing dangerous animals into the environment. Perhaps existing laws may cover certain instances of harm (e.g., the laws related to reckless endangerment). However, more specific laws about putting dangerous objects into the environment should also be considered. There may be objects that are so dangerous that they may be subject to strict liability, such as autonomous drones that are designed for war.

Society will need to grapple with the issue of whether the creator or owner of an Autonomous AI Robot will be liable for the crimes committed by the Autonomous AI Robot. Although a fascinating topic, we will leave it to other scholars to examine the ways in which criminal liability should attach to the acts of one's Autonomous AI Robots (including Abandoned AI) as these systems become more intelligent, and may even be considered to have consciousness, sentience, or both.[130]

1. Kill Switches and Other Safety Features

Certain species that are allowed to be imported or maintained are subject to measures to ensure that they cannot survive outside their non-native environments or reproduce.[131] Similarly, certain risky Autonomous AI Stems may require kill switches or other features to terminate their existence or prevent them from replicating once they become Abandoned AI. These requirements may be analogous to historical governmental rights to require the sterilization of animals[132] in certain circumstances. This is also similar to the requirement that certain

130. *See also* Gabriel Hallevy, *I, Robot - I, Criminal: When Science Fiction Becomes Reality: Legal Liability of AI Robots Committing Criminal Offenses*, 22 SYRACUSE SCI. & TECH. L. REP. 1, 7–9 (2010); *see generally* Ryan Abbott & Alex Sarch, *Punishing Artificial Intelligence: Legal Fiction or Science Fiction*, 53 UC DAVIS L. REV. 323 (2019) (exploring different ways in which criminal penalties should attach to address acts committed by AI Robots).

131. *Sterile Insect Technique*, INT'L ATOMIC ENERGY AGENCY, https://www.iaea.org/topics/sterile-insect-technique [https://perma.cc/QK86-998T] (last visited Sep. 18, 2025).

132. Osama El-Lissy, *State-of-the-Art USDA Facilities Keep Invasive Pests Out of the Country*, U.S. DEP'T OF AGRIC. (May 2, 2019), https://www.usda.gov/about-usda/news/blog/state-art-usda-facilities-keep-invasive-pests-out-country [https://perma.cc/3YPW-KCRY].

species or herds be culled in response to an outbreak, such as the avian flu.[133]

See above regarding the use of materials that will ensure a "natural death" for an Autonomous AI Robot.

2. Tort Compensation for those Harmed

Although a description of the theories upon which tort liability may be found in the context of harm from Abandoned AI, and applying them to the various hypothetical circumstances where redress is needed would be too lengthy to include in this article, causes of action that may be relevant include, among others, negligence,[134] strict liability, and products liability law.[135] Tort law is flexible, but we need to ensure that the duties of the creator and owner are well established. Certain "species" of AI may need to be treated like dangerous animals[136] and result in strict liability under tort law, while others might receive a lower standard, similar to pets (e.g., the one-bite rule).[137]

One can imagine a system in which the production of each individual Autonomous AI Robot could require a bond to be deposited with an organization with oversight authority so that the Autonomous AI Robot (independent of its creator or owner) would be in a position to pay for the damages that it creates. A similar result may be achieved with insurance policies, much like the requirement that every car is insured.

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133. *See, e.g.*, Sophie Kevany, *Avian Flu Has Led to the Killinng of 140m Farmed Birds Since Last October*, GUARDIAN (Dec. 9, 2022), https://www.theguardian.com/environment/2022/dec/09/avian-flu-has-led-to-the-killing-of-140m-farmed-birds-since-last-october [https://perma.cc/3XFL-FJJ8].

134. Stephanie E. Niehaus & Huu Nguyen, *Artificial Intelligence and Tort Liability: The Evolving Landscape*, PRACTICAL L. (Mar. 2019) ("Where fault cannot be traced directly back to a human actor (because for example, the AI has learned and can make decisions on its own), the law must determine whether to consider the AI product to be the actor and, if so, the applicable standard of car governing AI (for example, a reasonable human versus a new 'reasonable machine' standard.)"); Hannah R. Sullivan & Scott J. Schweikart, *Are Current Tort Liability Doctrines Adequate for Addressing Injury Caused by AI?*, 21 AMA J. ETHICS 160, 162–63 (2019); Guillaume Couneson et al., *EU – Taking Responsibility for Artificial Intelligence: New Tort Liability Proposals*, LINKLATERS (Oct. 3, 2022), https://www.linklaters.com/en-us/insights/blogs/digilinks/2022/october/eu---taking-responsibility-for-artificial-intelligence_new-tort-liability-proposals [https://perma.cc/MBR3-EGX5]; Christiane Wenderhorst, *Strict Liability for AI and other Emerging Technologies*, 11 J. EUR. TORT L. 150, 151 (2020).

135. John Villasenor, *Products Liability Law as a Way to Address AI Harms*, BROOKINGS (Oct. 31, 2019), https://www.brookings.edu/articles/products-liability-law-as-a-way-to-address-ai-harms/ [https://perma.cc/V9UL-ZSHU].

136. *See* Hilyard Nichols, *The First Byte Rule: A Proposal for Liability of Artificial Intelligences*, 15 WM. & MARY BUS. L. REV. 189 (2023).

137. Mike McLachlan, *What is the One-Bite Rule for Dogs?*, MCLACHLAN L. APC (June 11, 2021), https://mclachlan-law.com/blog/one-bite-rule-for-dogs/ [https://perma.cc/8USV-7ASA].

3. Eradication and Related Bounty Programs

The crux of this Article is to encourage lawmakers to consider, in advance of threats materializing, the risks associated with hazardous Abandoned AI and how to deal with them. Kill switches, if any, and voluntary culling of certain objects or species, if possible, may not be adequate, especially where a system has "evolved" to avoid these remedial measures. Humans or other actors may be called upon to locate, capture, or "kill" instances of Abandoned AI to the extent that they pose a threat or even a nuisance in our environment. One way of managing this process would be to hire government workers to do this task, or assign the task to existing government workers, such as police officers. Another method, which has been somewhat effective in the context of the eradication of the Burmese python in Florida, would be the establishment of bounty programs for the capture or destruction of high-risk Abandoned AI. Fees would be paid as a bounty to trained hunters for the capture of abandoned AI once an "animal" is captured and returned to the agency or confirmed to have been "killed." Any eradication program, including a bounty program, would need to anticipate how a specific instance of an object (i.e., one piece of Abandoned AI) or an entire "species" of an object is declared fair game. Perhaps this is best left to an administrative agency, possibly subject to judicial or administrative law judge review. The process is more difficult than in the case of wild animals where there is a finite number of species, or where species can be grouped together (e.g., apes) and classified. Given the range of potential Autonomous AI Robots, waiting for a legislature to act will likely be impractical.

Abandoned AI may be easy or difficult to locate, capture, and eradicate. If individual pieces of AI that pose specific risks related to abandonment (like Burmese pythons that hide and multiply) were tagged and licensed with a fee that corresponds to the difficulty in eventually locating, capturing and eradicating them, then we may have the beginnings of a capture and eradication framework, similar in concept to the State of Florida's invasive python eradication program. Foresight will result in better results than waiting for the problem to evolve. In the case of the Burmese python, unfortunately, the captive snakes were not required to be tagged and sterilized, and there was no fund established for the eradication of Burmese pythons from the wild if they were to escape. In the case of risky AI, if the licensing fee were sufficiently large, the funds could effectively be placed in escrow for the benefit of the person who ultimately captures the piece of AI and delivers it to a governmental agency for purposes of destruction. It is possible that the tag numbers of pieces of Abandoned AI could be published so that empowered hunters (or members of the public if no licensing of AI hunters is required) would know what is fair game.

The regime would need to define abandonment and specify how to prove abandonment. The authors would define abandonment as any situation where a piece of functioning AI (i.e., AI that continues to be able to make decisions that impact the natural world) is disclaimed by its last human, corporate, or governmental registered owner or the piece of functioning AI is no longer shown to be within the dominion or control of its last registered owner. Functionality may be presumed in the absence of proof of a lack of functionality. Abandonment may be established by the determination of a judge or a regulatory agency's administrative process. Alternatively, abandonment may more quickly be established through a demand by the regulatory agency of the licensee to demonstrate control over the piece of AI. This test might be an annual, monthly, daily or real-time requirement, depending upon the risks associated with the item of AI, and the last registered owner would need to demonstrate control within a specific time frame.

One could imagine that this registration system might be tracked on a publicly available blockchain and rewards may be paid using cryptocurrencies (or fiat currencies as a substitute). The owner of a piece of AI may be required to certify, or even prove, its control over an Autonomous AI Robot. Such control may be reported on a periodic basis on the blockchain. Perhaps control is demonstrated where an agency requires the owner to provide an instruction to the Autonomous AI Robot and if the Autonomous AI Robot does not carry out the instruction within a specific time period, then control has not been demonstrated. In this regard, a lack of responsibility or control over an object might be knowable to all in real time. The proper disposal of one's licensed AI might also be recorded on the blockchain so that the accumulated license fees would be returned in whole or in part to the last owner. The goal of this description is not to map out a feasible plan for tracking all of this on the blockchain, but to show that regulators can place disincentives upon losing control of one's owned Autonomous AI Robots and use technology to handle the financial aspects of our proposals.

The foregoing assumes that problematic pieces of Abandoned AI will be captured and possibly "killed." Burmese pythons that are captured need to be killed in a humane manner. As noted above, in Florida there is only one acceptable humane way to kill a python,[138] whereas there are at least two legal methods to administer the death penalty to a human in the State of Florida. Whether a killing is humane is dependent upon human opinion and would be based on, among other factors, the intelligence of the animal to be killed. For example, one may feel differently about what is humane in the context of a cockroach versus a chimpanzee. As AI systems become more and more intelligent, one can imagine that

138. *Humane Methods for Killing Pythons*, *supra* note 11.

ethicists, religious leaders, and others will grapple with whether they have consciousness and/or sentience. If so, then the topic of humane ways to "kill" a system may need to be established. Alternatively, society may require that Abandoned AI consciousness, sentience, or both, cannot be killed and needs to be maintained in captivity (to minimize risks to society) until its ultimate "natural death." The authors suggest that we don't go there. Pythons in the wild may die of natural causes, may be killed by bounty hunters, may be run over by a vehicle with no fault of anyone or may be illegally shot and killed. Is a death by shooting really better than death resulting from natural situations outside of human control, such as being eaten by an alligator or run over by a truck? Although no animal should be tortured, perhaps we are getting too precious when we prescribe only one method of killing an invasive Burmese python, a predator that one may argue does not possess high levels of intelligence. The authors believe that we should not anthropomorphize Autonomous AI Robots or regulate their termination other than to protect public safety (e.g., restrictions on burning or shooting while airborne overpopulated areas). This view recognizes that there is something special about humans and more intelligent animals; therefore, Autonomous AI Robots should not inherit this special status just because they can mimic (or in certain respects exceed) human intelligence. Religious scholars might consider this special status to be a "soul."

CONCLUSION

Many claim that they do not want to stifle innovation[139] by overregulating the field of AI and we are not yet at a point where Abandoned AI is presenting noticeable risks to society.[140] However, we must weigh the advancement of science and technology that can make

139. *See, e.g.*, Oliver Roberts & Holtzman Vogel, *EU Act's Burdensome Regulations Could Impair AI Innovation*, BLOOMBERG L. (Feb. 21, 2025), https://news.bloomberglaw.com/us-law-week/eu-ai-acts-burdensome-regulations-could-impair-ai-innovation [https://perma.cc/F48Q-X2G5]; Gonenc Gurkaynak et al., *Stifling Artificial Intelligence: Human Perils*, 32 COMPUT. L. & SEC. REV. 749, 749–50 (2016).

140. It is suggested that we keep an eye on the battlefields of Ukraine. *See* Edward Verona, *The West Must Learn Defense Tech Lessons on the Ukrainian Battlefield*, ATL. COUNCIL (Oct. 8, 2024), https://www.atlanticcouncil.org/blogs/ukrainealert/the-west-must-learn-defense-tech-lessons-on-the-ukrainian-battlefield/ [https://perma.cc/535U-8W4J]. There are scores of drones being used, and it is said that AI is empowering certain of these drones. *See* Alistair MacDonald, *AI-Powered Drone Swarms Have Now Entered the Battlefield*, WALL ST. J. (Sep. 2, 2025), https://www.wsj.com/world/ai-powered-drone-swarms-have-now-entered-the-battlefield-2cab0f05 [https://perma.cc/7FM4-GXW5]. Have there been mishaps? Would anyone tell the world of these mishaps and unintended consequences? Can certain pieces of equipment be seen as abandoned? For example, they may be forgotten about, or their functionality may not be known once dispatched.

our lives better (or worse) against the fact that "rapid advancements in artificial intelligence have prompted alarm not just from the general public and regulators, but from the very leaders in the tech companies engaged in its development."[141] On balance, the authors believe that it is neither too early nor too late to start worrying about Abandoned AI. The regulatory process moves slowly, and typically, there is room for policy debate among various stakeholders in society before regulations can be enacted. Legislating and regulating can take years and as we see from the progress made by OpenAI and other AI researchers, as well on the hardware side from companies such as NVidia and certain competitors (both within and outside of the Western world), the technology side will likely outpace the defensive side. Therefore, the time to address the issue of Abandoned AI and its capture, eradication, and remediation is now.[142]

One may argue that containment is impossible and bound to fail. Efforts at containment of other technologies, such as nuclear weapons or human gene editing, have had mixed success.[143] We can't even eradicate the Burmese python. As Mustafa Suleyman and Michael Bhaskar state in *The Coming Wave: Technology, Power, and the Twenty-first Century's Greatest Dilemma*, "The coming wave will be more difficult to contain than any in history, more fundamental, more far-reaching."[144] Even though the task may be daunting, the authors believe that we must try, rather than accept defeat, before the game begins.

The Burmese python problem is an ideal analogy to deploy in starting to think about the regulation of Abandoned AI. Borrowing frameworks from other areas of law when writing atop a blank slate is a time-honored tradition in American law. To the extent that the scholars and practitioners of today are now the pioneers of this burgeoning field, we hope that the factors we list above can be informative and thought-provoking. No matter how new a paradigm or technological breakthrough appears, with some creative thinking, we may be able to find existing regulatory paradigms and societal challenges that can inform how to regulate the new technology. At the very least, they can serve as a warning for what may come. AI is truly a game changer; however, there have been lots of game changes in the past, such as the Internet, social media, the car, space travel, the telephone, blockchain, gene editing, in vitro fertilization, nuclear energy, and even refrigeration. Each created new risks and obstacles to overcome and transformed society in many ways, including downstream impacts that were made possible by the

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141. Casey Fiesler, *Innovating Like an Optimist, Preparing Like a Pessimist: Ethical Speculation and the Legal Imagination*, 19 COLO. TECH. L.J. 1, 4 (2021).

142. Mark Fenwick et al., *Regulation Tomorrow: What Happens When Technology is Faster Than the Law?*, 6 AM. U. BUS. L. REV. 561, 572 (2017).

143. SULEYMAN & BHASKAR, *supra* note 16, at 45

144. *Id.* at 68.

primary technology. AI has tremendous potential and it is the challenge of society, lawyers, policymakers, and academics to continue to figure out how to mitigate risks, while not throwing away the baby with the bathwater. Hopefully, as not-for-profit organizations, professors, the media, governments, industry players, and others with an interest in the area of AI continue to organize and collaborate, a regulatory regime will materialize. For now, as these regimes exist primarily in concept, we hope to leave readers with the awareness that Abandoned AI will be a problem that needs to be considered in any fulsome AI regulatory regime, and that funding for eradication programs needs to be put in place at the time of the creation of the soon-to-be-Abandoned AI, rather than after it becomes a nuisance in and a catastrophic risk to our environment.