INTELLIGENCE

from Natural Origins to Artificial Frontiers

HUMAN INTELLIGENCE vs. ARTIFICAL INTELLIGENCE

Nicolae Sfetcu

MultiMedia Publishing

Intelligence, from Natural Origins to Artificial Frontiers

Human Intelligence vs. Artificial Intelligence

BOOK CHAPTER: THE ETHICS OF ARTIFICIAL INTELLIGENCE

Nicolae Sfetcu

Published by MultiMedia Publishing

”Intelligence, from Natural Origins to Artificial Frontiers - Human Intelligence vs. Artificial Intelligence”

https://www.telework.ro/en/e-books/intelligence-from-natural-origins-to-artificial-frontiers-human-intelligence-vs-artificial-intelligence/

Published by MultiMedia Publishing, https://www.telework.ro/en/publishing/

Cover images generated by ChatGPT 4

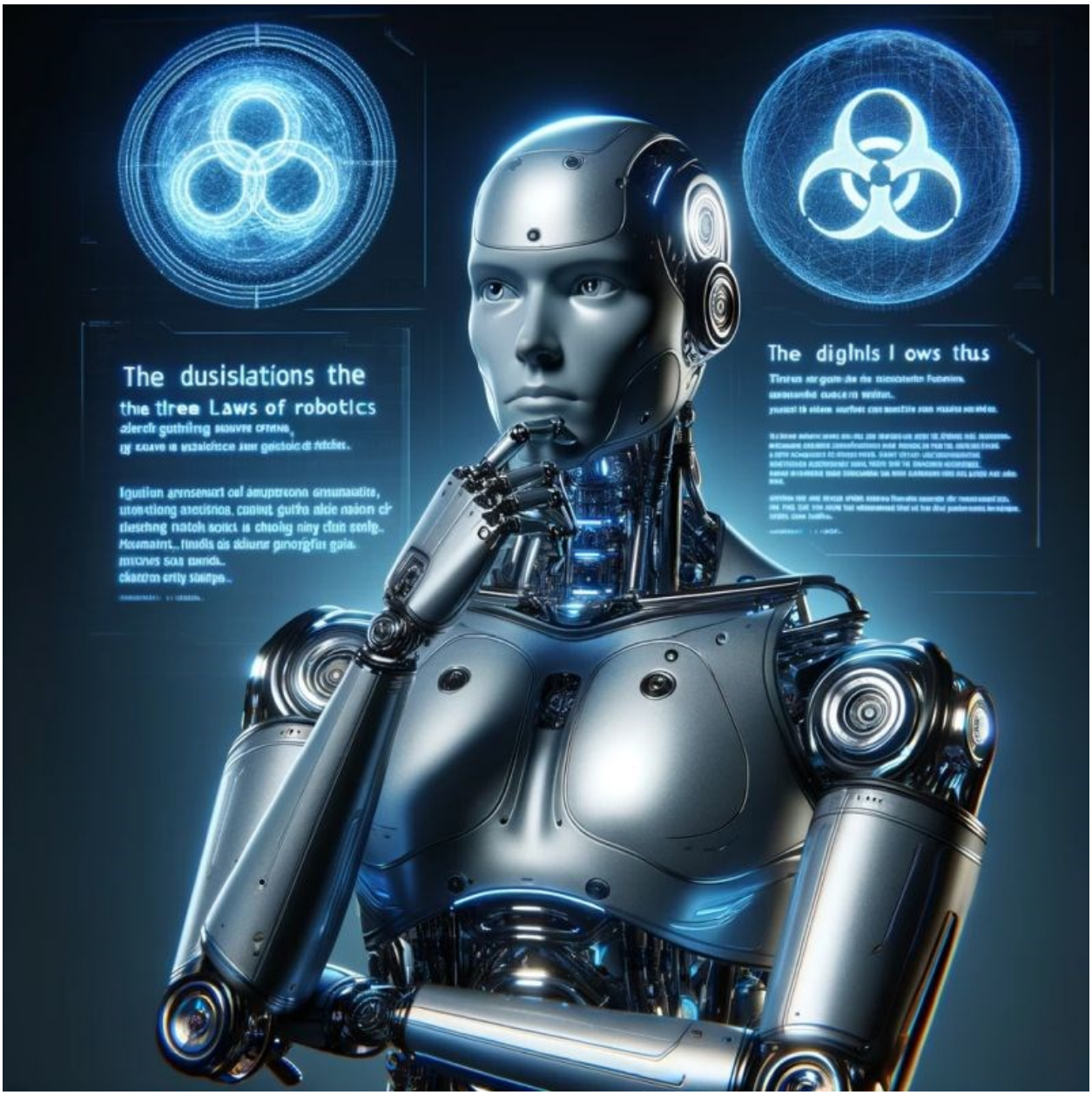
ISBN 978-606-033-856-7

DOI: DOI: 10.58679/MM97993

Contents

Intelligence, from Natural Origins to Artificial Frontiers 1
Human Intelligence vs. Artificial Intelligence 1
The ethics of artificial intelligence 4
Ethical principles of AI 6
Ethical challenges of AI 10
The laws of robots 11
Ethical machines 12
Contents 13
Book 16
Bibliography 18

The ethics of artificial intelligence



The ethics of artificial intelligence. Image generated by ChatGPT 4

Both human and artificial intelligence have made remarkable progress in recent decades. Human intelligence has led to innovations in science, technology, art, and government, shaping the world in profound ways. Meanwhile, AI has revolutionized industries such as healthcare, finance, transportation and entertainment, providing unprecedented capabilities in data analysis, automation and decision-making.

However, these advances also raise ethical considerations and societal implications. Ethical dilemmas regarding AI governance, mitigating bias, and preserving privacy require urgent attention. As AI systems become increasingly autonomous, ensuring transparency, accountability and fairness is critical. Additionally, the socioeconomic ramifications of widespread AI adoption deserve careful deliberation. While AI has the potential to enhance human capabilities and alleviate societal challenges, it also poses risks, such as replacing jobs and exacerbating inequality. Navigating these complex ethical and societal issues will require collaborative efforts by policymakers, technologists, and stakeholders from different fields.

The ethics of artificial intelligence involves two aspects: the moral behavior of humans in the design, manufacture, use and treatment of artificially intelligent systems, and the behavior (ethics) of machines, including the case of a possible singularity due to superintelligent AI. (Müller 2023)

Robot ethics ("roboetics") deals with the design, construction, use, and treatment of robots as physical machines. Not all robots use AI systems and not all AI systems are robots. (Müller 2023)

Machine ethics (or machine morality) deals with the design of artificial moral agents (AMAs), robots or artificially intelligent computers that behave morally or as if they were moral (Anderson and Anderson 2011). Common characteristics of the agent in philosophy, such as the rational agent, the moral agent, and the artificial agent, are related to the concept of AMA (Boyles 2017).

Machine ethics deals with adding or ensuring moral behaviors to machines using artificial intelligence (artificially intelligent agents) (J.H. Moor 2006).

Isaac Asimov in 1950 in *I, Robot* proposed the three laws of robotics, then tested the limits of these laws (Asimov 2004).

James H. Moor defines four types of ethical robots: ethical impact agent, implicit ethical agent (to avoid unethical outcomes), explicit ethical agent (process scenarios and act on ethical decisions), and fully ethical agent (able to makes ethical decisions, in addition to human metaphysical traits). A machine can include several such types (James H. Moor 2009).

The term "machine ethics" was coined by Mitchell Waldrop in the 1987 IA journal article "A Question of Responsibility":

> "Intelligent machines will embody values, assumptions, and purposes, whether their programmers consciously intend them to or not. Thus, as computers and robots become more and more intelligent, it becomes imperative that we think carefully and explicitly about what those built-in values are. Perhaps what we need is, in fact, a theory and practice of machine ethics, in the spirit of Asimov's three laws of robotics" (Waldrop 1987)

To increase efficiency and avoid bias, Nick Bostrom and Eliezer Yudkowsky argued for decision trees over neural networks and genetic algorithms, as decision trees conform to modern social norms of transparency and predictability (Bostrom and Yudkowsky 2018). Chris Santos-Lang championed neural networks and genetic algorithms (Santos-Lang 2015). In 2009, in an

experiment, AI robots were programmed to cooperate with each other using a genetic algorithm. The robots then learned to lie to each other in an attempt to hoard resources from other robots (S. Fox 2009), but they also engaged in altruistic behavior by signaling danger to each other and even giving their lives to save other robots. The ethical implications of this experiment have been contested by machine ethicists.

In 2009, at a conference, it was discussed that some machines have acquired various forms of semi-autonomy; also, some computer viruses can avoid their removal and have acquired "bug intelligence" (S. Fox 2009).

There is currently a heated debate about the use of autonomous robots in military combat (Palmer 2009), and the integration of general artificial intelligence into existing legal and social frameworks (Sotala and Yampolskiy 2014).

Nayef Al-Rodhan mentions the case of neuromorphic chips, a technology that could support the moral competence of robots (Al-Rodhan 2015).

Ethical principles of AI

AI decision-making raises questions of legal responsibility and copyright status of created works (Guadamuz 2017). Friendly AI involves machines designed to minimize risks and make choices that benefit humans (Yukdowsky 2008). The field of machine ethics provides principles and procedures for solving ethical dilemmas, founded at an AAIA symposium in 2005 (AAAI 2014).

The regulation of artificial intelligence is the development of public sector policies and laws to promote and regulate artificial intelligence and by implication algorithms, an emerging issue in jurisdictions globally (Law Library of Congress (U.S.) 2019). Between 2016 and 2020, more than 30 countries adopted dedicated AI strategies. Most EU member states have launched national AI strategies, as have Canada, China, India, Japan, Mauritius, the Russian Federation, Saudi Arabia, the United Arab Emirates, the US and Vietnam. Others are in the process of developing their own AI strategy, including Bangladesh, Malaysia and Tunisia. The Global Partnership on Artificial Intelligence was launched in June 2020, stating the need for AI to be developed in line with human rights and democratic values (UNESCO 2021), to ensure public trust in the technology. In the US, Henry Kissinger, Eric Schmidt and Daniel Huttenlocher published a joint statement in November 2021 calling for a government commission to regulate AI (Sfetcu 2021).

In the review of 84 ethics guidelines for AI, 11 groups of principles were found: transparency, justice and fairness, non-maleficence, responsibility, confidentiality, beneficence, freedom and autonomy, trust, sustainability, dignity, solidarity (Jobin, Ienca, and Vayena 2019).

Luciano Floridi and Josh Cowls created an ethical framework of AI principles based on four principles of bioethics (beneficence, non-maleficence, autonomy and justice) and an additional AI-enabling principle – explainability (Floridi and Cowls 2019).

Bill Hibbard argues that AI developers have an ethical obligation to be transparent in their work (Hibbard 2016). Ben Goertzel and David Hart created OpenCog as an open-source framework for

AI development (Hart and Goertzel 2016). OpenIA is a non-profit AI research company created by Elon Musk, Sam Altman and others to develop open source AI beneficial to humanity (Metz 2016).

Many researchers recommend government regulation as a means of ensuring transparency, although critics worry that it will slow the rate of innovation (UN 2017).

There is a huge volume of proposed ethical principles for AI—already more than 160 in 2020, according to Algorithm Watch's global inventory of *AI Ethics Guidelines* (AlgorithmWatch 2024), which threatens to overwhelm and confuse.

On June 26, 2019, the European Commission's High Level Expert Group on Artificial Intelligence (IA HLEG) published "Policy and Investment Recommendations for Trustworthy AI", covering four main topics: people and society at large, research and academia, the private sector and the public sector. The European Commission claims that "the HLEG recommendations reflect both the opportunities that AI technologies can drive economic growth, prosperity and innovation, as well as the potential associated risks", and states that the EU aims to lead the development of policies governing AI internationally. On April 21, 2021, the European Commission proposed the Artificial Intelligence Law (EU 2024).

According to Mihalis Kritikos (Kritikos 2019), the development of AI in a regulatory and ethical vacuum has sparked a series of debates about the need for its legal control and ethical oversight. AI-based algorithms that perform automated reasoning tasks appear to control increasing aspects of our lives by implementing institutional decision-making based on big data analysis and have, in fact, made this technology an influential standard-setter.

The impact of existing AI technologies on the exercise of human rights, from freedom of expression, freedom of assembly and association, the right to privacy, the right to work and the right to non-discrimination to equal protection of the law, must be carefully examined and qualified together with the potential of AI to exacerbate inequalities and widen the digital divide. Given AI's potential to act in an autonomous manner, its sheer complexity and opacity, and the uncertainty surrounding its operation, make a comprehensive regulatory response essential to prevent ever-expanding applications from causing social harm in a very heterogeneous range of individuals and social groups.

Such a response should include obligating AI algorithm developers to fully respect the human rights and civil liberties of all users, maintaining uninterrupted human control over AI systems, addressing the effects of emotional connection and attachment between humans and robots and develop common standards against which a judicial authority using AI will be evaluated. It should also focus on the allocation of responsibilities, rights and duties and prevent the reduction of the legal governance process to a mere technical optimization of machine learning and algorithmic decision-making procedures. In this framework, new collective data rights must be introduced, which will protect the ability to refuse to be profiled, the right to appeal and the right to explanation in decision-making frameworks based on artificial intelligence.

In addition, legislators must ensure that organizations implementing and using these systems remain legally responsible for any caused harm and develop sustainable and proportionate informed consent protocols (Kritikos 2019).

2017 European Parliament Resolution on civil law rules in robotics - comprising a 'code of ethical conduct for robotics engineers', a 'code for research ethics committees', a 'designers' license' and a 'users' license ” can serve as a governance model for a detailed process-based architecture of AI technology ethics (Kritikos 2019).

The European Commission appointed the High Level Expert Group (HLEG) on AI in 2018, one of their tasks is to define ethical guidelines for trustworthy AI. For an AI system to be reliable, it should ensure the following three components throughout the entire life cycle of the system (Joint Research Centre (European Commission), Samoili, et al. 2020):

1. *Lawfully*, in compliance with all applicable laws and regulations,
2. *Ethical*, ensuring adherence to ethical principles and values,
3. *Robust*, technically and socially.

The four ethical principles that are rooted in fundamental rights that must be respected to ensure that AI systems are developed, implemented and used in a trustworthy way are (Joint Research Centre (European Commission), Samoili, et al. 2020):

- Respect for human autonomy,
- Preventing harm,
- Fairness,
- Explainability.

These are reflected in legal requirements (the scope of legal AI, which is the first component of trusted AI).

Stakeholder responsibilities (Joint Research Centre (European Commission), Samoili, et al. 2020):

a. *Developers*: must implement and apply the requirements of the design and development processes.
b. *Implementers*: must ensure that the systems they use and the products and services they offer meet the requirements.
c. *End users and society in general*: must be informed of these requirements and be able to demand that they be respected.

Requirements that include systemic, individual and societal aspects (Joint Research Centre (European Commission), Samoili, et al. 2020):

1. *Human agency and surveillance*, including fundamental rights and human surveillance.
2. *Technical robustness and security*, including security and resistance to attacks, fallback plan and overall security, accuracy, reliability and reproducibility.
3. *Data privacy and governance*, including respect for confidentiality, data quality and integrity, and access to data.
4. *Transparency*, including traceability, explainability and communication.

5. *Diversity, non-discrimination and fairness*, including avoidance of unfair bias, accessibility and universal design and stakeholder participation.
6. *Societal and environmental well-being*, including sustainability and environmental friendliness, social impact, society and democracy.

Implementation of these requirements should occur throughout the entire life cycle of an AI system and depends on the specific application.

In June 2016, Satya Nadella, CEO of Microsoft Corporation, in an interview with Slate magazine recommended the following principles and goals for artificial intelligence (Vincent 2016):

- "AI must be designed to assist humanity", i.e. human autonomy must be respected.
- “AI must be transparent,” meaning that people should know and be able to understand how it works.
- "AI must maximize efficiency without destroying human dignity."
- “AI must be designed for intelligent privacy,” meaning it earns trust by protecting their information.
- “AI must have algorithmic accountability” so humans can undo unintended harm.
- “AI must guard against bias” so that it does not discriminate against humans.

In 2017, the Asilomar AI principles (Asilomar 2017) were embraced by an impressive list of 1273 AI/robotics researchers and others (Joint Research Centre (European Commission), Samoili, et al. 2020):

- Provide a broad framework about research objectives, funding and policy linkage.
- Ethics and values consider safety, transparency, judicial transparency, accountability, human values, personal privacy, common benefits, human control, AI arms race, etc.
- Discuss the long-term issues and risk of possible superintelligence, mitigation of the threat posed by AI systems, etc.

The OECD Principles for AI (OECD 2024a) identify five complementary principles (Joint Research Centre (European Commission), Samoili, et al. 2020):

1. AI should benefit all people by fostering inclusive growth, sustainable development and well-being.
2. Artificial intelligence systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity, and should include appropriate safeguards.
3. There should be transparency and responsible disclosure around AI systems to ensure that people understand AI-based results and can challenge them.
4. AI systems must operate in a robust and secure manner throughout their life cycle, and potential risks should be continuously assessed and managed.
5. Organizations and individuals developing, implementing or operating AI systems should be held accountable for their proper functioning in accordance with the above principles.

Other sets of principles adopted to date (Floridi 2023):

- The Montreal Declaration (Université de Montréal 2017) developed under the auspices of the University of Montreal following the Forum on the Socially Responsible Development of AI in November 2017;
- OECD developed Council recommendations on AI (OECD 2024b);
- The "five general principles for an AI code" from the report of the United Kingdom House of Lords Select Committee on Artificial Intelligence (House of Lords 2017, par. 417) published in April 2018;
- Partnership Principles on AI (Partnership on AI 2024) published in collaboration with academics, researchers, civil society organizations, companies building and using AI technology and other groups.
- China has released its own AI principles, called the Beijing AI Principles.
- The Google AI Principles (Google 2024) focus on building socially beneficial artificial intelligence.

Many AI ethics committees have been formed, including the Stanford Institute for Human-Centered AI (HAI), the Alan Turing Institute, the AI Partnership, IA Now, IEEE, and others. Research advances make it possible to develop evaluation frameworks for fairness, transparency and accountability (Joint Research Centre (European Commission), Samoili, et al. 2020).

Ethical challenges of AI

If a machine has a mind and subjective experience, then it may also have sentience (the ability to feel), and if so, then it might have certain rights (Russell and Norvig 2016, 964) on a common spectrum with animal rights and human (Henderson 2007).

Many academics and governments dispute the idea that AI can be held accountable per se (Bryson, Diamantis, and Grant 2017). Also, some experts and academics disagree with the use of robots in military combat, especially if they have autonomous functions (Palmer 2009).

Currently attempts are being made to create tests to see if an AI is capable of making ethical decisions. The Turing test is considered insufficient. A specific proposed test is the Ethical Turing Test, where several judges decide whether the AI's decision is ethical or unethical (A. F. Winfield et al. 2019).

Biases in AI systems: AI systems are vulnerable to biases and errors introduced by their human creators and the data used to train these systems (Gabriel 2018). One solution to addressing bias is to create documentation for the data used to train AI systems (Bender and Friedman 2018).

Robot rights: A concept that humans should have moral obligations to their machines, similar to human rights or animal rights (W. Evans 2015). Thus, in October 2017, the android Sophia was granted citizenship in Saudi Arabia (Hatmaker 2017). The philosophy of sentientism accords degrees of moral consideration to all sentient beings, including artificial intelligence if it is proven to be sentient.

Unlike humans, AGIs can be copied in any number of copies. Are the copied copies the same person or several different people? Do I get one vote or more? Is deleting one of the children a

crime? Would treating AGI like any other computer programs constitute brainwashing, slavery and tyranny? (Deutsch 2012)

Threat to human dignity: Joseph Weizenbaum argued in 1976 that AI technology should not be used to replace humans in positions that require respect and care (Weizenbaum 1976). John McCarthy contradicts him: "When moralizing is both vehement and vague, it invites authoritarian abuse" (McCarthy 2000).

Liability for self-driving cars: There is a debate about legal liability in the event of an accident. If a driverless car hit a pedestrian, who was to blame for the accident: the driver, the pedestrian, the builder, or the government? (Shinn 2021)

Weapons that include AI: Many experts and academics oppose the use of autonomous robots in military combat. There is a possibility that robots will develop the ability to make their own logical decisions in killing. This includes autonomous drones. Stephen Hawking and Max Tegmark signed a "Future of Life" petition (Asilomar 2017) to ban AI-equipped weapons (Musgrave and Roberts 2015).

Opaque algorithms: Machine learning with neural networks can lead to AI decisions that the humans who programmed them cannot explain. Explainable AI encompasses both explainability (summarizing neural network behavior and increasing user confidence) and interpretability (understanding what a model has done or could do) (Bunn 2020).

Regardless of whether we are talking about a weak AI or a strong AI (AGI), the imposition of norms, compliance with them can take three possible directions: a) strict compliance with these norms; b) own different interpretation of the imposed norms (with the possibility of deviating from the projected objectives); and c) (in the case of AGI only) developing very different norms and ethics of their own.

The laws of robots

The first ethical laws are considered to be the 10 commandments present three times in the Old Testament, being dictated according to the Bible by God to Moses (Coogan 2014, 27, 33), a set of biblical principles related to ethics and worship originating in the Jewish tradition which plays a fundamental role in Judaism and Christianity.

The best-known set of laws for robots are those written by Isaac Asimov in the 1940s, introduced in his 1942 short story "Runaround":

6. A robot cannot harm a human being or, through inaction, allow a human being to do harm.
7. A robot must obey orders given by human beings, unless such orders conflict with the First Law.
8. A robot must protect its own existence if such protection does not conflict with the First or Second Law (Asimov 2004).

In *The Evitable Conflict*, the First Law for Machines is generalized:

9. No machine can harm humanity; or, by inaction, cannot allow harm to be done to mankind.

In *Foundation and Earth*, a zero law was introduced, with the original three duly rewritten as subordinate to it:

1. A robot cannot harm humanity or, through inaction, allow humanity to be harmed.

In 2011, the UK's Engineering and Physical Sciences Research Council (EPSRC) and Arts and Humanities Research Council (AHRC) published a set of five "ethical principles for designers, builders and users of robots" in the real world, along with seven 'high-level messages' (A. Winfield 2011):

Ethical principles:

1. Robots should not be designed solely or primarily to kill or injure humans.
2. Humans, not robots, are responsible agents. Robots are tools designed to achieve human goals.
3. Robots should be designed in ways that ensure their safety and security.
4. Robots are artifacts; they should not be designed to exploit vulnerable users by evoking an emotional response or addiction. It should always be possible to distinguish between a robot and a human.
5. It should always be possible to find out who is legally responsible for a robot.

A terminology for the legal assessment of robot developments is being implemented in Asian countries (BBC 2007).

Mark W. Tilden proposed a series of principles/rules for robots (Dunn 2009):

1. A robot must protect its existence at all costs.
2. A robot must obtain and maintain access to its own power source.
3. A robot must continuously search for better energy sources.

Ethical machines

Friendly AI are machines that have been designed from the ground up to minimize risk and make choices that benefit humans. Eliezer Yudkowsky, who coined the term, argues that developing friendly AI should be a higher research priority: it may require a large investment and must be completed before AI becomes an existential risk.

Intelligent machines have the potential to use their intelligence to make ethical decisions. The field of machine ethics provides machines with ethical principles and procedures for solving ethical dilemmas. Machine ethics is also called machine morality, computational ethics, or computational morality, and was founded at an AAIA symposium in 2005.

Other approaches include Wendell Wallach's "artificial moral agents" and Stuart J. Russell's three principles for developing machines that prove beneficial (Sfetcu 2021).

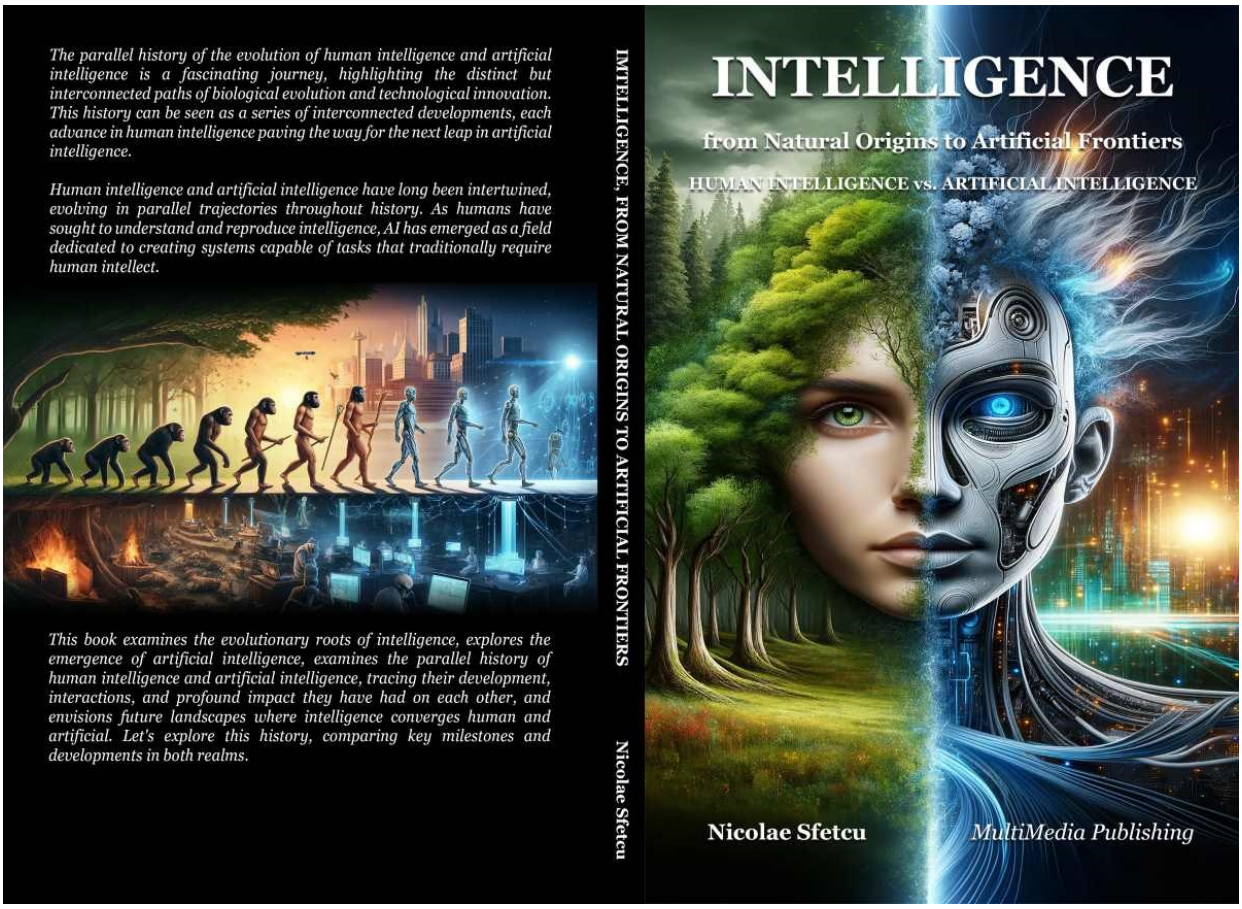
Contents

Introduction
What is intelligence?
- Conscience
- Mind
- - Computationalism
- - Connectionism
- - Mind-body problem
- Emotional intelligence
- - Emotions
- - The philosophy of emotional intelligence
- The intelligence of animals
The evolution of human intelligence
- Hominidae
- Homininae
- Homo
- Evolutionary psychology and new thought
- Models of the evolution of human intelligence
- Human intelligence throughout a person's life
Artificial intelligence
- Definitions
- - Intelligent agents
- AI Objectives
- - AI alignment
- - Explainability of AI
- - Confinement of AI
- AI tools
- - Trend
- Turing test
The evolution of artificial intelligence
- Precursors of AI
- - Antiquity
- - Middle Ages
- - Modern period
- - Formal reasoning
- The emergence of artificial intelligence (1941-1956)
- First successes (1956-1974)
- - AI approaches
- - Unrealistic predictions
- First Winter of AI (1974–1980)
- First boom of AI (1980–1987)

- - Expert systems
- - The knowledge revolution
- - The revival of neural networks
- - Accomplishments
- - Unrealistic predictions
- Second winter of AI (1987–1993)
- - Accomplishments
- Second Boom of AI (1993–2011)
- - Accomplishments
- Deep learning, big data (2011–2020)
- - Accomplishments
- - Predictions
- - Problems
- Large language models (2020-prezent)
- AI life cycle
- General artificial intelligence
The philosophy of artificial intelligence
- Hubert Dreyfus
- Thought
- The consciousness of artificial intelligence
- - Computationalism
- - Chinese brain (Chinese nation)
- - Chinese room
- - Pinocchio
Implications of artificial intelligence
- AI effect
- The influence of AI on human activity
- - Economy
- - Digital divide
- - Health
- - Transport
- - Education
- - Social and ethical implications
- The influence of AI on human intelligence
- Cyber security
- Electronic warfare
- National security
The ethics of artificial intelligence
- Ethical principles of AI
- Ethical challenges of AI
- The laws of robots
- - Ethical machines
Risks and challenges

- Threats of AI
- - Black boxes
- - Algorithmic biases
- - Threat actors
- - Threat modeling methodologies
- - Taxonomy of threats
- - "The right to explanation"
- Risks of AI
- - Existential risk
Perspectives of artificial intelligence
- Convergences and divergences
- - Convergences
- - Divergences
- The influence of AI on human intelligence
- - Positive influences
- - Negative influences
- General Artificial Intelligence – The AI Singularity
- - AGI scenarios
- - Thought experiment: AGI's decisional impasse
- - Controversies
- - Predictions
- Transhumanism
- - The history of transhumanism
- - Criticism of transhumanism
- - The new eugenics
- - The ethics of eugenics
- - The perspectives of transhumanism
- Posthumanism
Conclusions
Bibliography

Book



The parallel history of the evolution of human intelligence and artificial intelligence is a fascinating journey, highlighting the distinct but interconnected paths of biological evolution and technological innovation. This history can be seen as a series of interconnected developments, each advance in human intelligence paving the way for the next leap in artificial intelligence.

Human intelligence and artificial intelligence have long been intertwined, evolving in parallel trajectories throughout history. As humans have sought to understand and reproduce intelligence, AI has emerged as a field dedicated to creating systems capable of tasks that traditionally require human intellect.

This book examines the evolutionary roots of intelligence, explores the emergence of artificial intelligence, examines the parallel history of human intelligence and artificial intelligence, tracing their development, interactions, and profound impact they have had on each other, and envisions future landscapes where intelligence converges human and artificial. Let's explore this history, comparing key milestones and developments in both realms.

MultiMedia Publishing https://www.telework.ro/en/e-books/intelligence-from-natural-origins-to-artificial-frontiers-human-intelligence-vs-artificial-intelligence/

Digital: EPUB (ISBN 978-606-033-854-3), Kindle (ISBN 978-606-033-855-0) PDF (ISBN 978-606-033-856-7)

DOI: 10.58679/MM97993

Publishing date: 09.07.2024

Bibliography

AAAI. 2014. "Machine Ethics." November 29, 2014. https://web.archive.org/web/20141129044821/http://www.aaai.org/Library/Symposia/Fall/fs05-06.

Abrams, Jerold J. 2004. "Pragmatism, Artificial Intelligence, and Posthuman Bioethics: Shusterman, Rorty, Foucault." *Human Studies* 27 (3): 241–58. https://doi.org/10.1023/B:HUMA.0000042130.79208.c6.

Agar, Nicholas. 2004. *Liberal Eugenics: In Defence of Human Enhancement*. 1 edition. Malden, MA: Wiley-Blackwell.

Albrecht, Stefano V., and Peter Stone. 2018. "Autonomous Agents Modelling Other Agents: A Comprehensive Survey and Open Problems." *Artificial Intelligence* 258 (May):66–95. https://doi.org/10.1016/j.artint.2018.01.002.

Aleksander, Igor. 1995. "Artificial Neuroconsciousness an Update." In *From Natural to Artificial Neural Computation*, edited by José Mira and Francisco Sandoval, 566–83. Berlin, Heidelberg: Springer. https://doi.org/10.1007/3-540-59497-3_224.

AlgorithmWatch. 2024. "AI Ethics Guidelines Global Inventory." AlgorithmWatch. 2024. https://algorithmwatch.org/en/ai-ethics-guidelines-global-inventory/.

Al-Jazari. 2016. *Al Jazari's Book - The Book Of Knowledge Of Ingenious Mechanical Devices*. Al Jazari.

Allen, John, and Giampiero Massolo. 2020. *The Global Race for Technological Superiority. Discover the Security Implication*. Edited by Fabio Rugge. Milan: Ledizioni.

Allen, Paul G., and Mark Greaves. 2011. "Paul Allen: The Singularity Isn't Near." MIT Technology Review. 2011. https://www.technologyreview.com/2011/10/12/190773/paul-allen-the-singularity-isnt-near/.

AlphaStar. 2019. "AlphaStar: Mastering the Real-Time Strategy Game StarCraft II." Google DeepMind. January 24, 2019. https://deepmind.google/discover/blog/alphastar-mastering-the-real-time-strategy-game-starcraft-ii/.

Al-Rodhan, Nayef. 2015. "The Moral Code." *Foreign Affairs*, August 12, 2015. https://www.foreignaffairs.com/moral-code.

Al-Yaseen, Wathiq Laftah, Zulaiha Ali Othman, and Mohd Zakree Ahmad Nazri. 2017. "Multi-Level Hybrid Support Vector Machine and Extreme Learning Machine Based on Modified K-Means for Intrusion Detection System." *Expert Systems with Applications* 67 (January):296–303. https://doi.org/10.1016/j.eswa.2016.09.041.

Amodei, Dario, Chris Olah, Jacob Steinhardt, Paul Christiano, John Schulman, and Dan Mané. 2016. "Concrete Problems in AI Safety." arXiv. https://doi.org/10.48550/arXiv.1606.06565.

Amouri, Amar, Vishwa T. Alaparthy, and Salvatore D. Morgera. 2020. "A Machine Learning Based Intrusion Detection System for Mobile Internet of Things." *Sensors* 20 (2): 461. https://doi.org/10.3390/s20020461.

Anderson, Michael, and Susan Leigh Anderson, eds. 2011. *Machine Ethics*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511978036.

Armstrong, D. M. 1968. *A Materialist Theory of the Mind*. Edited by Ted Honderich. New York: Routledge.

Asilomar. 2017. "Asilomar AI Principles." *Future of Life Institute* (blog). 2017. https://futureoflife.org/open-letter/ai-principles/.

Asimov, Isaac. 2004. *I, Robot*. Bantam Books.

Asllani, Arben, Alireza Lari, and Nasim Lari. 2018. "Strengthening Information Technology Security through the Failure Modes and Effects Analysis Approach." *International Journal of Quality Innovation* 4 (1): 5. https://doi.org/10.1186/s40887-018-0025-1.

Aydede, Murat, and Guven Guzeldere. 2000. "Consciousness, Intentionality and Intelligence: Some Foundational Issues for Artificial Intelligence." *Journal of Experimental & Theoretical Artificial Intelligence* 12 (3): 263–77. https://doi.org/10.1080/09528130050111437.

Aydin, Ciano. 2017. "The Posthuman as Hollow Idol: A Nietzschean Critique of Human Enhancement." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 42 (3): 304–27. https://doi.org/10.1093/jmp/jhx002.

Ayer, Alfred J. T. 1936. "Language, Truth and Logic." *Nature* 138 (3498): 823–823. https://doi.org/10.1038/138823a0.

Baars, Bernard J. 1988. *A Cognitive Theory of Consciousness*. Cambridge University Press.

Babuta, Alexander, Marion Oswald, and Ardi Janjeva. 2023. "Artificial Intelligence and UK National Security: Policy Considerations." November 2, 2023. https://rusi.orghttps://rusi.org.

Badmington, Neil. 2015. "Posthumanism." Bloomsbury. 2015. https://www.bloomsbury.com/us/posthumanism-9781350309807/.

Banerjee, Robin, Dawn Watling, and Marcella Caputi. 2011. "Peer Relations and the Understanding of Faux Pas: Longitudinal Evidence for Bidirectional Associations." *Child Development* 82 (6): 1887–1905. https://doi.org/10.1111/j.1467-8624.2011.01669.x.

Barr, W. Andrew, Briana Pobiner, John Rowan, Andrew Du, and J. Tyler Faith. 2022. "No Sustained Increase in Zooarchaeological Evidence for Carnivory after the Appearance of Homo Erectus." *Proceedings of the National Academy of Sciences* 119 (5): e2115540119. https://doi.org/10.1073/pnas.2115540119.

Barron, Colin. 2003. "A Strong Distinction between Humans and Non-Humans Is No Longer Required for Research Purposes: A Debate Between Bruno Latour and Steve Fuller." *History of The Human Sciences* 16 (May):77–99. https://doi.org/10.1177/0952695103016002004.

Barton, Robert A. 2012. "Embodied Cognitive Evolution and the Cerebellum." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2097–2107. https://doi.org/10.1098/rstb.2012.0112.

BBC. 2007. "Robotic Age Poses Ethical Dilemma," March 7, 2007. http://news.bbc.co.uk/2/hi/technology/6425927.stm.

Bearzi, Maddalena, and Craig B. Stanford. 2007. "Dolphins and African Apes: Comparisons of Sympatric Socio-Ecology." *Contributions to Zoology* 76 (4): 235–54. https://doi.org/10.1163/18759866-07604003.

Beauchamp, Tom L. 1979. "Principles of Biomedical Ethics - Paperback - Oxford University Press." 1979. https://global.oup.com/ushe/product/principles-of-biomedical-ethics-9780199924585?cc=ro&lang=en&.

Becker Friedman Institute. 2015. "How Big Data Is Changing Economies." 2015. https://web.archive.org/web/20180618102343/https://bfi.uchicago.edu/events/how-big-data-changing-economies.

Bellman, Richard. 1978. *An Introduction to Artificial Intelligence: Can Computers Think?* Boyd & Fraser Publishing Company.

Bender, Emily M., and Batya Friedman. 2018. "Data Statements for Natural Language Processing: Toward Mitigating System Bias and Enabling Better Science." *Transactions of the Association for Computational Linguistics* 6 (December):587–604. https://doi.org/10.1162/tacl_a_00041.

Bender, Emily M., Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. 2021. "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜." In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610–23. FAccT '21. New York, NY, USA: Association for Computing Machinery. https://doi.org/10.1145/3442188.3445922.

Bertini, Marco, Alberto Del Bimbo, and Carlo Torniai. 2006. "Automatic Annotation and Semantic Retrieval of Video Sequences Using Multimedia Ontologies." In *Proceedings of the 14th ACM International Conference on Multimedia*, 679–82. MM '06. New York, NY, USA: Association for Computing Machinery. https://doi.org/10.1145/1180639.1180782.

Bickle, John. 2003. *Philosophy and Neuroscience*. https://link.springer.com/book/10.1007/978-94-010-0237-0.

Binet, Alfred, and Th. Simon. 1916. *New Methods for the Diagnosis of the Intellectual Level of Subnormals. (L'Année Psych., 1905, Pp. 191-244)*. The Development of Intelligence in Children (The Binet-Simon Scale). Baltimore, MD, US: Williams & Wilkins Co. https://doi.org/10.1037/11069-002.

Bishop, J. Mark. 2021. "Artificial Intelligence Is Stupid and Causal Reasoning Will Not Fix It." *Frontiers in Psychology* 11. https://doi.org/10.3389/fpsyg.2020.513474.

Black, Edwin. 2004. *War Against the Weak: Eugenics and America's Campaign to Create a Master Race*. Thunder's Mouth Press.

Block, Ned. 1978. "Troubles with Functionalism." *Minnesota Studies in the Philosophy of Science* 9:261–325.

———. 1980. "What Is Functionalism?" In *Readings in the Philosophy of Psychology*, edited by Ned Block.

Bonner, Anthony. 2007. *The Art and Logic of Ramon Llull: A User's Guide*. BRILL.

Borg, Ruben. 2019. "Fantasies of Self-Mourning: Modernism, the Posthuman and the Finite." In *Fantasies of Self-Mourning*. Brill. https://brill.com/display/title/54051.

Borges, Jorge Luis. 2000. *The Library of Babel*. David R. Godine.

Borji, Ali. 2023. "A Categorical Archive of ChatGPT Failures." arXiv. https://doi.org/10.48550/arXiv.2302.03494.

Bostrom, Nick. 2005. "A History of Transhumanist Thought." *Journal of Evolution and Technology* 14 (1): 1–25.

———. 2014. *Superintelligence: Paths, Dangers, Strategies*. Oxford University Press.

———. 2015. "What Happens When Our Computers Get Smarter than We Are? | TED Talk." 2015. https://www.ted.com/talks/nick_bostrom_what_happens_when_our_computers_get_smarter_than_we_are/transcript.

Bostrom, Nick, and Eliezer Yudkowsky. 2018. "The Ethics of Artificial Intelligence." In , 57–69. https://doi.org/10.1201/9781351251389-4.

Bouchard, Thomas J. 1982. Review of *Review of The Intelligence Controversy*, by H. J. Eysenck and Leo Kamin. *The American Journal of Psychology* 95 (2): 346–49. https://doi.org/10.2307/1422481.

Boyles, Robert James M. 2017. "Philosophical Signposts for Artificial Moral Agent Frameworks." *Suri* 6 (2): 92–109.

Bragg, Lorena. 2022. "How Intelligence Changes with Age." 2022. https://www.brain-testing.org/articles-intelligence/how-intelligence-changes-with-age.

Brand, Stewart. 1989. *The Media Lab: Inventing the Future at MIT*. Penguin Books.

Bringsjord, Selmer, and Naveen Sundar Govindarajulu. 2020. "Artificial Intelligence." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta and Uri Nodelman, Summer 2020. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/sum2020/entries/artificial-intelligence/.

Britannica. 2024. "Human Intelligence | Definition, Types, Test, Theories, & Facts." 2024. https://www.britannica.com/science/human-intelligence-psychology.

Brooks, Rodney A. 1990. "Elephants Don't Play Chess." *Robotics and Autonomous Systems*, Designing Autonomous Agents, 6 (1): 3–15. https://doi.org/10.1016/S0921-8890(05)80025-9.

Brown, Noam, and Tuomas Sandholm. 2017. "Superhuman AI for Heads-up No-Limit Poker: Libratus Beats Top Professionals." *Science* 359 (December):eaao1733. https://doi.org/10.1126/science.aao1733.

Brun, G., D. Kuenzle, G. Brun, U. Doguoglu, and D. Kuenzle. 2008. "Introduction: A New Role for Emotions in Epistemology?" In *Epistemology and Emotions*, 1–31. Aldershot: Ashgate. https://doi.org/info:doi/10.5167/uzh-11071.

Bryson, Joanna J., Mihailis E. Diamantis, and Thomas D. Grant. 2017. "Of, for, and by the People: The Legal Lacuna of Synthetic Persons." *Artificial Intelligence and Law* 25 (3): 273–91. https://doi.org/10.1007/s10506-017-9214-9.

Bubeck, Sébastien, Varun Chandrasekaran, Ronen Eldan, Johannes Gehrke, Eric Horvitz, Ece Kamar, Peter Lee, et al. 2023. "Sparks of Artificial General Intelligence: Early Experiments with GPT-4." arXiv. https://doi.org/10.48550/arXiv.2303.12712.

Buchanan, Allen, Dan W. Brock, and Norman Daniels. 2000. *From Chance to Choice: Genetics and Justice*. Cambridge University Press.

Bunn, Jenny. 2020. "Working in Contexts for Which Transparency Is Important: A Recordkeeping View of Explainable Artificial Intelligence (XAI)." *Records Management Journal* 30 (2): 143–53. https://doi.org/10.1108/RMJ-08-2019-0038.

Butler, Samuel. 2006. "Darwin Among the Machines [To the Editor of the Press, Christchurch, New Zealand, 13 June, 1863.] | NZETC." May 24, 2006. https://web.archive.org/web/20060524131242/http://www.nzetc.org/tm/scholarly/tei-ButFir-t1-g1-t1-g1-t4-body.html.

Buttazzo, G. 2001. "Artificial Consciousness: Utopia or Real Possibility?" *Computer* 34 (August):24–30. https://doi.org/10.1109/2.933500.

Caliskan, Aylin, Joanna J. Bryson, and Arvind Narayanan. 2017. "Semantics Derived Automatically from Language Corpora Contain Human-like Biases." *Science* 356 (6334): 183–86. https://doi.org/10.1126/science.aal4230.

Calvo, Paco, and Antoni Gomila. 2008. *Handbook of Cognitive Science: An Embodied Approach*. Elsevier.

Čapek, Karel. 2021. *R.U.R.* Artis.

Carlsmith, Joseph. 2022. "Is Power-Seeking AI an Existential Risk?" arXiv. https://doi.org/10.48550/arXiv.2206.13353.

Carter, Richard, and Howard Auken. 2006. "Small Firm Bankruptcy." *Journal of Small Business Management* 44 (October):493–512. https://doi.org/10.1111/j.1540-627X.2006.00187.x.

Caruso, David R., John D. Mayer, and Peter Salovey. 2002. "Relation of an Ability Measure of Emotional Intelligence to Personality." *Journal of Personality Assessment* 79 (2): 306–20. https://doi.org/10.1207/S15327752JPA7902_12.

Caruso, Gregg D. 2012. *Free Will and Consciousness: A Determinist Account of the Illusion of Free Will*. Lexington Books.

Cecchetto, D. 2013. "Humanesis: Sound and Technological Posthumanism," January, 1–212.

Cellan-Jones, Rory. 2014. "Stephen Hawking Warns Artificial Intelligence Could End Mankind." *BBC News*, December 2, 2014, sec. Technology. https://www.bbc.com/news/technology-30290540.

Cetina, Karin Knorr, Theodore R. Schatzki, and Eike von Savigny, eds. 2000. *The Practice Turn in Contemporary Theory*. London: Routledge. https://doi.org/10.4324/9780203977453.

Chalmers, David. 1995. "Facing Up to the Problem of Consciousness." *Journal of Consciousness Studies* 2 (3): 200–219.

Chalmers, David J. 1995. "Absent Qualia, Fading Qualia, Dancing Qualia." In *Conscious Experience*, edited by Thomas Metzinger, 309–28. Ferdinand Schoningh.

———. 2010. "The Singularity: A Philosophical Analysis." *Journal of Consciousness Studies* 17 (9–10): 9–10.

Chalmers, David John. 1996. *The Conscious Mind: In Search of a Fundamental Theory*. The Conscious Mind: In Search of a Fundamental Theory. New York, NY, US: Oxford University Press.

Charniak, Eugene, and Drew V. McDermott. 1985. *Introduction to Artificial Intelligence*. Addison-Wesley.

Chatila, Raja, Erwan Renaudo, Mihai Andries, Ricardo-Omar Chavez-Garcia, Pierre Luce-Vayrac, Raphael Gottstein, Rachid Alami, et al. 2018. "Toward Self-Aware Robots." *Frontiers in Robotics and AI* 5 (August). https://doi.org/10.3389/frobt.2018.00088.

Chen, Zhiyan, Jinxin Liu, Yu Shen, Murat Simsek, Burak Kantarci, H.T. Mouftah, and Petar Djukic. 2022. "Machine Learning-Enabled IoT Security: Open Issues and Challenges Under Advanced Persistent Threats." *ACM Computing Surveys* 55 (April). https://doi.org/10.1145/3530812.

Cherry, Kendra. 2023. "Jean Piaget's Life and Contributions to Psychology." Verywell Mind. 2023. https://www.verywellmind.com/jean-piaget-biography-1896-1980-2795549.

Childers, Joseph, and Gary Hentzi, eds. 1995. *The Columbia Dictionary of Modern Literary and Cultural Criticism*. Columbia University Press.

Chomsky, Noam. 1967. "Review of B. F. Skinner's Verbal Behavior." 1967. https://chomsky.info/1967____/.

Christian, Brian. 2020. *The Alignment Problem: Machine Learning and Human Values*. WW Norton.

Ciarrochi, Joseph, Frank P. Dean, and Stephen Anderson. 2002. "Emotional Intelligence Moderates the Relationship between Stress and Mental Health." *Personality and Individual Differences* 32 (2): 197–209. https://doi.org/10.1016/S0191-8869(01)00012-5.

Ciregan, Dan, Ueli Meier, and Jürgen Schmidhuber. 2012. "Multi-Column Deep Neural Networks for Image Classification." In *2012 IEEE Conference on Computer Vision and Pattern Recognition*, 3642–49. https://doi.org/10.1109/CVPR.2012.6248110.

Clark, Andy. 2013. *Mindware: An Introduction to the Philosophy of Cognitive Science*. Second Edition, New to this Edition:, Second Edition, New to this Edition: Oxford, New York: Oxford University Press.

Clark, Jack. 2015. "Why 2015 Was a Breakthrough Year in Artificial Intelligence." *Bloomberg.Com*, December 8, 2015. https://www.bloomberg.com/news/articles/2015-12-08/why-2015-was-a-breakthrough-year-in-artificial-intelligence.

Clark, Keith L. 1978. "Negation as Failure." In *Logic and Data Bases*, edited by Hervé Gallaire and Jack Minker, 293–322. Boston, MA: Springer US. https://doi.org/10.1007/978-1-4684-3384-5_11.

Clarke, Arthur Charles. 1974. *The Nine Billion Names of God*. New American Library.

———. 2000. *Greetings, Carbon-Based Bipeds!: A Vision of the 20th Century as It Happened*. HarperCollins.

Clocksin, William F. 2003. "Artificial Intelligence and the Future." *Philosophical Transactions of the Royal Society of London. Series A: Mathematical, Physical and Engineering Sciences* 361 (1809): 1721–48. https://doi.org/10.1098/rsta.2003.1232.

CNN. 2006. "AI Set to Exceed Human Brain Power." 2006. https://edition.cnn.com/2006/TECH/science/07/24/ai.bostrom/.

———. 2008. "Scientists: Humans and Machines Will Merge in Future - CNN.Com." 2008. https://edition.cnn.com/2008/TECH/07/15/bio.tech/index.html.

Cole, David. 2023. "The Chinese Room Argument." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta and Uri Nodelman, Summer 2023. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/sum2023/entries/chinese-room/.

Colmerauer, Alain, and Philippe Roussel. 1993. "The Birth of Prolog." *ACM SIGPLAN Notices* 28 (3): 37–52. https://doi.org/10.1145/155360.155362.

Colyvan, Mark. 2012. *An Introduction to the Philosophy of Mathematics*. Cambridge University Press.

Committee, National Research Council (U S.) Automatic Language Processing Advisory. 1966. *Language and Machines: Computers in Translation and Linguistics; a Report*. National Academies Press.

Confucius. 2013. *Confucian Analects, The Great Learning & The Doctrine of the Mean*. Courier Corporation.

Coogan, Michael. 2014. *The Ten Commandments: A Short History of an Ancient Text*. Yale University Press. https://www.jstor.org/stable/j.ctt5vkqht.

Copeland, Edited by B. Jack, ed. 2004. *The Essential Turing: Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life plus The Secrets of Enigma*. Oxford, New York: Oxford University Press.

Copeland, Jack. 2000. "A Brief History of Computing." 2000. https://www.alanturing.net/turing_archive/pages/Reference%20Articles/BriefHistofComp.html.

Cortes, Corinna, and Vladimir Vapnik. 1995. "Support-Vector Networks." *Machine Learning* 20 (3): 273–97. https://doi.org/10.1007/BF00994018.

Cosmides, Leda, H. Clark Barrett, and John Tooby. 2010. "Adaptive Specializations, Social Exchange, and the Evolution of Human Intelligence." *Proceedings of the National*

Academy of Sciences 107 (supplement_2): 9007–14. https://doi.org/10.1073/pnas.0914623107.

Crevier, Daniel. 1993. *AI: The Tumultuous History of the Search for Artificial Intelligence*.

Critical Posthumanism Network. 2013. "Genealogy." *Critical Posthumanism Network* (blog). October 1, 2013. https://criticalposthumanism.net/genealogy/.

CS Europe. 2023. "Cyber Security Europe | Cyber Security Insight for Boardroom and C-Suite Executives." Cyber Security Europe. 2023. https://www.cseurope.info/.

Cummings, Greta, Leslie Hayduk, and Carole Estabrooks. 2005. "Mitigating the Impact of Hospital Restructuring on Nurses: The Responsibility of Emotionally Intelligent Leadership." *Nursing Research* 54 (1): 2–12. https://doi.org/10.1097/00006199-200501000-00002.

Dai, David Yun, and Robert J. Sternberg. 2004. *Motivation, Emotion, and Cognition*. 1 edition. Mahwah, N.J: Routledge.

Darling, Kate. 2012. "Extending Legal Protection to Social Robots: The Effects of Anthropomorphism, Empathy, and Violent Behavior Towards Robotic Objects." SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.2044797.

DARPA. 2007. "The Grand Challenge." 2007. https://www.darpa.mil/about-us/timeline/-grand-challenge-for-autonomous-vehicles.

Davenport, Thomas, and Ravi Kalakota. 2019. "The Potential for Artificial Intelligence in Healthcare." *Future Healthc J* 6 (2): 94–98. https://doi.org/10.7861/futurehosp.6-2-94.

De Spiegeleire, Stephan, Matthijs Maas, and Tim Sweijs. 2017. *Artificial Intelligence and the Future of Defense*.

Deary, Ian J. 2013. "Intelligence." *Current Biology* 23 (16): R673–76. https://doi.org/10.1016/j.cub.2013.07.021.

Deary, Ian J., Jian Yang, Gail Davies, Sarah E. Harris, Albert Tenesa, David Liewald, Michelle Luciano, et al. 2012. "Genetic Contributions to Stability and Change in Intelligence from Childhood to Old Age." *Nature* 482 (7384): 212–15. https://doi.org/10.1038/nature10781.

DeCasien, Alex R., Scott A. Williams, and James P. Higham. 2017. "Primate Brain Size Is Predicted by Diet but Not Sociality." *Nature Ecology & Evolution* 1 (5): 1–7. https://doi.org/10.1038/s41559-017-0112.

Deecke, Lüder, Berta Grözinger, and H. H. Kornhuber. 1976. "Voluntary Finger Movement in Man: Cerebral Potentials and Theory." *Biological Cybernetics* 23 (2): 99–119. https://doi.org/10.1007/BF00336013.

Dehaene, S., H. Lau, and S. Kouider. 2017. "What Is Consciousness, and Could Machines Have It? | Science." 2017. https://www.science.org/doi/10.1126/science.aan8871.

Deng, Jia, Wei Dong, Richard Socher, Li-Jia Li, Kai Li, and Li Fei-Fei. 2009. "ImageNet: A Large-Scale Hierarchical Image Database." In *2009 IEEE Conference on Computer Vision and Pattern Recognition*, 248–55. https://doi.org/10.1109/CVPR.2009.5206848.

Dennett, Daniel. 1988. "Conditions of Personhood." In *What Is a Person?*, edited by Michael F. Goodman, 145–67. Totowa, NJ: Humana Press. https://doi.org/10.1007/978-1-4612-3950-5_7.

Dennett, Daniel C., F. Dretske, S. Shurville, A. Clark, I. Aleksander, and J. Cornwell. 1994. "The Practical Requirements for Making a Conscious Robot [and Discussion]." *Philosophical Transactions: Physical Sciences and Engineering* 349 (1689): 133–46.

Dennett, Daniel Clement, and Daniel C. Dennett. 1993. *Consciousness Explained*. Penguin Adult.

Deonna, Julien A. 2006. "Emotion, Perception and Perspective." *Dialectica* 60 (1): 29–46. https://doi.org/10.1111/j.1746-8361.2005.01031.x.

Descartes, René. 1641. "Meditations on First Philosophy: Fifth Meditation: 'The Essence of Material Things, and the Existence of God Considered a Second Time.'" 1641. http://www.sparknotes.com/philosophy/meditations/section10/.

———. 1984. *The Philosophical Writings of Descartes: Volume 3, The Correspondence*. Cambridge University Press.

Descartes, Rene. 1989. *The Passions of the Soul: Les Passions De l'Âme*. Translated by Stephen Voss. Indianapolis: Hackett Publishing Company, Inc.

Descartes, René. 1996. "Discourse on the Method and Meditations on First Philosophy." *Yale University Press* (blog). 1996. https://yalebooks.yale.edu/9780300067736/discourse-on-the-method-and-meditations-on-first-philosophy.

Descartes, Rene. 2016. *Meditationes de Prima philosophia*. CreateSpace Independent Publishing Platform.

Deutsch, David. 2012. "Philosophy Will Be the Key That Unlocks Artificial Intelligence." *The Guardian*, October 3, 2012, sec. Science. https://www.theguardian.com/science/2012/oct/03/philosophy-artificial-intelligence.

Dictionary.com. 2024. "Cognition." Dictionary.Com. April 17, 2024. https://www.dictionary.com/browse/cognition.

Diels, Hermann, and Walther Kranz. 1951. *Die Fragmente der Vorsokratiker, griechisch und deutsch.* Berlin: Weidmann.

Dijkstra, E.W. 2012. "The Threats to Computing Science (EWD898)." 2012. https://www.cs.utexas.edu/~EWD/transcriptions/EWD08xx/EWD898.html.

Dneprov, Anatoly. 1961. "A Russian Chinese Room Story Antedating Searle's 1980 Discussion." 1961. https://web.archive.org/web/20210516024117/http://www.hardproblem.ru/en/posts/Events/a-russian-chinese-room-story-antedating-searle-s-1980-discussion/.

Domingos, Pedro. 2015. *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World*. Penguin Books Limited.

Drexler, Eric. 1986. *Engines of Creation: The Coming Era of Nanotechnology*. Knopf Doubleday Publishing Group.

Dreyfus, Hubert L. 1965. "Alchemy and Artificial Intelligence." RAND Corporation. https://www.rand.org/pubs/papers/P3244.html.

———. 1992. "What Computers Still Can't Do." MIT Press. 1992. https://mitpress.mit.edu/9780262540674/what-computers-still-cant-do/.

Dreyfus, Hubert L., and Stuart E. Dreyfus. 1986. *Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. Free Press.

Dulewicz, Victor, and Malcolm Higgs. 2000. "Emotional Intelligence: A Review and Evaluation Study." *Journal of Managerial Psychology* 15 (4): 341–72. https://doi.org/10.1108/02683940010330993.

Dunbar, Robin I. M. 1998. "The Social Brain Hypothesis." *Evolutionary Anthropology: Issues, News, and Reviews* 6 (5): 178–90. https://doi.org/10.1002/(SICI)1520-6505(1998)6:5<178::AID-EVAN5>3.0.CO;2-8.

Dunn, Ashley. 2009. "Machine Intelligence, Part II: From Bumper Cars to Electronic Minds." 2009. https://archive.nytimes.com/www.nytimes.com/library/cyber/surf/0605surf.html.

Dyck, Arthur J. 1973. "Ethics and Medicine." *The Linacre Quarterly* 40 (3): 182–200.

Eccles, John C. 1989. "Evolution of the Brain: Creation of the Self." Routledge & CRC Press. 1989. https://www.routledge.com/Evolution-of-the-Brain-Creation-of-the-Self/Eccles/p/book/9780415032247.

Edelman, Gary Grossman. 2020. "We're Entering the AI Twilight Zone between Narrow and General AI." *VentureBeat* (blog). September 3, 2020. https://venturebeat.com/ai/were-entering-the-ai-twilight-zone-between-narrow-and-general-ai/.

Eden, Amnon H., James H. Moor, Johnny H. Soraker, and Eric Steinhart. 2013. *Singularity Hypotheses: A Scientific and Philosophical Assessment*. Springer Science & Business Media.

EMK, SU. 2023. "ECHO Network." 2023. https://echonetwork.eu/.

ENISA. 2016. "Threat Taxonomy." File. ENISA. 2016. https://www.enisa.europa.eu/topics/cyber-threats/threats-and-trends/enisa-threat-landscape/threat-taxonomy/view.

———. 2020. "Artificial Intelligence Cybersecurity Challenges." Report/Study. ENISA. 2020. https://www.enisa.europa.eu/publications/artificial-intelligence-cybersecurity-challenges.

Epictetus. 1928. *The Discourses as Reported by Arrian ; the Manual, and Fragments*. William Heinemann.

Esposito translated bylorenzo chiesa, Roberto. 2011. "Politics and Human Nature." *Angelaki* 16 (3): 77–84. https://doi.org/10.1080/0969725X.2011.621222.

EU. 2024. "EU Artificial Intelligence Act | Up-to-Date Developments and Analyses of the EU AI Act." 2024. https://artificialintelligenceact.eu/.

Evans, Owain, Owen Cotton-Barratt, Lukas Finnveden, Adam Bales, Avital Balwit, Peter Wills, Luca Righetti, and William Saunders. 2021. "Truthful AI: Developing and Governing AI That Does Not Lie." arXiv. https://doi.org/10.48550/arXiv.2110.06674.

Evans, Woody. 2015. "Posthuman Rights: Dimensions of Transhuman Worlds." *Teknokultura. Revista de Cultura Digital y Movimientos Sociales* 12 (2): 373–84. https://doi.org/10.5209/rev_TK.2015.v12.n2.49072.

Everitt, Tom, Gary Lea, and Marcus Hutter. 2018. "AGI Safety Literature Review." arXiv. https://doi.org/10.48550/arXiv.1805.01109.

Feigenbaum, Edward A., and Pamela McCorduck. 1983. *The Fifth Generation: Artificial Intelligence and Japan's Computer Challenge to the World*. Addison-Wesley.

Ferrando, Francesca. 2014. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations." *"Existenz" Published by The Karl Jaspers Society of North America* 8 (March):26–32.

———. 2019. "Philosophical Posthumanism." Bloomsbury. 2019. https://www.bloomsbury.com/us/philosophical-posthumanism-9781350059498/.

Ferrucci, D. A. 2012. "Introduction to 'This Is Watson.'" *IBM Journal of Research and Development* 56 (3.4): 1:1-1:15. https://doi.org/10.1147/JRD.2012.2184356.

Feuerstein, R. 1990. "The Dynamic Assessment of Cognitive Modifiability." Feuerstein Publishing House Ltd. 1990. https://www.feuerstein-pbh.com/products/the-dynamic-assessment-of-cognitive-modifiability.

Fineman, Stephen. 2004. "Getting the Measure of Emotion--And the Cautionary Tale of Emotional Intelligence." *Human Relations* 57 (6): 719–40. https://doi.org/10.1177/0018726704044953.

Fitzgerald, McKenna, Aaron Boddy, and Seth D. Baum. 2020. "2020 Survey of Artificial General Intelligence Projects for Ethics, Risk, and Policy." https://gcrinstitute.org/papers/055_agi-2020.pdf.

Fletcher, John C., and Dorothy C. Wertz. 1990. "Ethics, Law, and Medical Genetics: After the Human Genome Is Mapped." *Emory Law Journal* 39 (3): 747–809.

Flinn, Mark V., David C. Geary, and Carol V. Ward. 2005. "Ecological Dominance, Social Competition, and Coalitionary Arms Races: Why Humans Evolved Extraordinary Intelligence." *Evolution and Human Behavior* 26 (1): 10–46. https://doi.org/10.1016/j.evolhumbehav.2004.08.005.

Floridi, Luciano. 2023. *The Ethics of Artificial Intelligence: Principles, Challenges, and Opportunities*. Oxford University Press. https://doi.org/10.1093/oso/9780198883098.001.0001.

Floridi, Luciano, and Josh Cowls. 2019. "A Unified Framework of Five Principles for AI in Society." *Harvard Data Science Review* 1 (1). https://doi.org/10.1162/99608f92.8cd550d1.

FM-2030. 1973. "Up-Wingers: A Futurist Manifesto." 1973. https://www.goodreads.com/book/show/931652.Up_Wingers.

Fodor, Jerry Alan. 1991. *Meaning in Mind: Fodor and His Critics*. Blackwell.

Foley, Robert A. 2016. "Mosaic Evolution and the Pattern of Transitions in the Hominin Lineage." *Philosophical Transactions of the Royal Society B: Biological Sciences* 371 (1698): 20150244. https://doi.org/10.1098/rstb.2015.0244.

Fox, Dov. 2012. "The Illiberality of Liberal Eugenics." SSRN Scholarly Paper ID 1072104. Rochester, NY: Social Science Research Network. https://papers.ssrn.com/abstract=1072104.

Fox, Stuart. 2009. "Evolving Robots Learn To Lie To Each Other." Popular Science. August 19, 2009. https://www.popsci.com/scitech/article/2009-08/evolving-robots-learn-lie-hide-resources-each-other/.

Franklin, Stanley P. 1995. "Artificial Minds." MIT Press. 1995. https://mitpress.mit.edu/9780262561099/artificial-minds/.

Freeman, Walter J. 2001. *How Brains Make Up Their Minds*. Columbia University Press.

Frey, Carl Benedikt, and Michael A. Osborne. 2017. "The Future of Employment: How Susceptible Are Jobs to Computerisation?" *Technological Forecasting and Social Change* 114 (January):254–80. https://doi.org/10.1016/j.techfore.2016.08.019.

Friedrich, Nancy. 2020. "AI and Machine Learning Redefine the EW Landscape | 2020-12-08 | Microwave Journal." 2020. https://www.microwavejournal.com/articles/35107-ai-and-machine-learning-redefine-the-ew-landscape.

Fuller, Steve, and Petar Jandrić. 2019. "The Postdigital Human: Making the History of the Future." *Postdigital Science and Education* 1 (1): 190–217. https://doi.org/10.1007/s42438-018-0003-x.

Gabriel, Iason. 2018. "The Case for Fairer Algorithms." *Medium* (blog). March 14, 2018. https://medium.com/@Ethics_Society/the-case-for-fairer-algorithms-c008a12126f8.

———. 2020. "Artificial Intelligence, Values, and Alignment." *Minds and Machines* 30 (3): 411–37. https://doi.org/10.1007/s11023-020-09539-2.

Gambrel, Dorothy, and Charissa Isidro. 2022. "A Visual Guide to the World's Military Budgets." *Bloomberg.Com*, March 11, 2022. https://www.bloomberg.com/news/features/2022-03-11/the-largest-militaries-visualized.

Gambrell, Dorothy, and Charissa Isidro. 2022. "A Visual Guide to the World's Military Budgets." *Bloomberg.Com*, March 11, 2022. https://www.bloomberg.com/news/features/2022-03-11/the-largest-militaries-visualized.

Gannon, Brian P. 2023. "Implement AI in Electromagnetic Spectrum Operations." U.S. Naval Institute. August 1, 2023. https://www.usni.org/magazines/proceedings/2023/august/implement-ai-electromagnetic-spectrum-operations.

Gardner, Howard. 1983. *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.

Garson, James. 1997. "Connectionism," May. https://plato.stanford.edu/archives/fall2018/entries/connectionism/.

Gazzaniga, Michael S., and Joseph E. LeDoux. 1978. *The Integrated Mind*. https://link.springer.com/book/10.1007/978-1-4899-2206-9.

Geist, Edward Moore. 2016. "It's Already Too Late to Stop the AI Arms Race—We Must Manage It Instead." *Bulletin of the Atomic Scientists* 72 (5): 318–21. https://doi.org/10.1080/00963402.2016.1216672.

Gelles, David. 2009. "Immortality 2.0: A Silicon Valley Insider Looks at California's Transhumanist Movement." Center for Genetics and Society. 2009. https://www.geneticsandsociety.org/article/immortality-20-silicon-valley-insider-looks-californias-transhumanist-movement.

Gennaro, Rocco J. 2019. "Consciousness | Internet Encyclopedia of Philosophy." 2019. https://iep.utm.edu/consciousness/.

Georgiev, Danko D. 2019. *Quantum Information and Consciousness: A Gentle Introduction*. Boca Raton: CRC Press. https://doi.org/10.1201/9780203732519.

Gergen, Kenneth J. 2009. *Realities and Relationships: Soundings in Social Construction*. Harvard University Press.

Ghafir, Ibrahim, Mohammad Hammoudeh, Vaclav Prenosil, Liangxiu Han, Robert Hegarty, Khaled Rabie, and Francisco J. Aparicio-Navarro. 2018. "Detection of Advanced Persistent Threat Using Machine-Learning Correlation Analysis." *Future Generation Computer Systems* 89 (December):349–59. https://doi.org/10.1016/j.future.2018.06.055.

Gigova, Radina. 2017. "Who Putin Thinks Will Rule the World | CNN." 2017. https://edition.cnn.com/2017/09/01/world/putin-artificial-intelligence-will-rule-world/index.html.

Glautier, M. W. E. 2007. *The Social Conscience*. Shepheard-Walwyn.

Gödel, Kurt, and Solomon Feferman. 1986. *Kurt Gödel: Collected Works: Volume III: Unpublished Essays and Lectures*. OUP USA.

Godfrey-Smith, Peter. 2012. "Darwinism and Cultural Change." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2160–70. https://doi.org/10.1098/rstb.2012.0118.

Godwin, William. 1793. *An Enquiry Concerning Political Justice: And Its Influence on General Virtue and Happiness*. Luke White.

Goertzel, Ben. 2007. "Human-Level Artificial General Intelligence and the Possibility of a Technological Singularity: A Reaction to Ray Kurzweil's The Singularity Is Near, and McDermott's Critique of Kurzweil." *Artificial Intelligence*, Special Review Issue, 171 (18): 1161–73. https://doi.org/10.1016/j.artint.2007.10.011.

———. 2014. "Artificial General Intelligence: Concept, State of the Art, and Future Prospects." *Journal of Artificial General Intelligence* 0 (January). https://doi.org/10.2478/jagi-2014-0001.

Goethe, Johann Wolfgang von. 1890. *Faust*. Frederick A. Stokes Company.

Goldie, Peter. 2004. "Emotion, Feeling, and Knowledge of the World." In *Thinking About Feeling: Contemporary Philosophers on Emotions*, edited by Robert C. Solomon. Oxford University Press.

Goldman, Alvin I. 1967. "A Causal Theory of Knowing - The Journal of Philosophy (Philosophy Documentation Center)." 1967. https://www.pdcnet.org/jphil/content/jphil_1967_0064_0012_0357_0372.

Goldstone, Robert L. 1998. "Perceptual Learning." *Annual Review of Psychology* 49 (Volume 49, 1998): 585–612. https://doi.org/10.1146/annurev.psych.49.1.585.

Goleman, Daniel. 1996. *Emotional Intelligence : Why It Can Matter More Than IQ*. New Ed edition. London: Bloomsbury Pub Ltd.

Good, I. J. 1965. "Speculations Concerning the First Ultraintelligent Machine*." 1965. https://web.archive.org/web/20010527181244/http://www.aeiveos.com/~bradbury/Authors/Computing/Good-IJ/SCtFUM.html.

Goodfellow, Ian, Jean Pouget-Abadie, Mehdi Mirza, Bing Xu, David Warde-Farley, Sherjil Ozair, Aaron Courville, and Y. Bengio. 2014. "Generative Adversarial Networks." *Advances in Neural Information Processing Systems* 3 (June). https://doi.org/10.1145/3422622.

Goodman, Bryce, and Seth Flaxman. 2017. "European Union Regulations on Algorithmic Decision Making and a 'Right to Explanation.'" *AI Magazine* 38 (3): 50–57. https://doi.org/10.1609/aimag.v38i3.2741.

Google. 2024. "Google AI Principles." Google AI. 2024. https://ai.google/responsibility/principles/.

Gottfredson, Linda S. 1997. "Mainstream Science on Intelligence: An Editorial with 52 Signatories, History, and Bibliography." *Intelligence*, Special Issue Intelligence and Social Policy, 24 (1): 13–23. https://doi.org/10.1016/S0160-2896(97)90011-8.

Graham, George. 2023. "Behaviorism." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta and Uri Nodelman, Spring 2023. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/spr2023/entries/behaviorism/.

Graziano, Michael S. A. 2013. *Consciousness and the Social Brain*. Oxford University Press.

Greenfield, Susan. 2008. "The Quest for Identity in the 21st Century." 2008. https://www.abebooks.com/signed-first-edition/Id-Quest-Identity-21st-Century-Greenfield/30252804605/bd.

Grossman, Lev. 2011. "2045: The Year Man Becomes Immortal." *Time*, October 2, 2011. https://content.time.com/time/magazine/article/0,9171,2048299,00.html.

Grossmann, Igor. 2017. "Wisdom in Context." *Perspectives on Psychological Science* 12 (2): 233–57. https://doi.org/10.1177/1745691616672066.

Grossmann, Igor, Harrison Oakes, and Henri C. Santos. 2019. "Wise Reasoning Benefits From Emodiversity, Irrespective of Emotional Intensity." *Journal of Experimental Psychology: General* 148 (5): 805–23. https://doi.org/10.1037/xge0000543.

Guadamuz, Andres. 2017. "Artificial Intelligence and Copyright." 2017. https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html.

Guglielmi, Giorgia. 2020. "The Next-Generation Bots Interfering with the US Election." *Nature* 587 (7832): 21–21. https://doi.org/10.1038/d41586-020-03034-5.

Guidotti, Riccardo, Anna Monreale, Salvatore Ruggieri, Franco Turini, Dino Pedreschi, and Fosca Giannotti. 2018. "A Survey Of Methods For Explaining Black Box Models." arXiv. https://doi.org/10.48550/arXiv.1802.01933.

Guilford, J. P. 1956. "The Structure of Intellect." *Psychological Bulletin* 53 (4): 267–93. https://doi.org/10.1037/h0040755.

Gulhane, Tejaswi Singh and Amit. 2018. "8 Key Military Applications for Artificial Intelligence." 2018. https://blog.marketresearch.com/8-key-military-applications-for-artificial-intelligence-in-2018.

Guzik, Erik E., Christian Byrge, and Christian Gilde. 2023. "The Originality of Machines: AI Takes the Torrance Test." *Journal of Creativity* 33 (3): 100065. https://doi.org/10.1016/j.yjoc.2023.100065.

Habermas, Jürgen. 2014. *The Future of Human Nature*. John Wiley & Sons.

Habibi Aghdam, Hamed, and Elnaz Jahani Heravi. 2017. "Guide to Convolutional Neural Networks: A Practical Application to Traffic-Sign Detection and Classification." 2017. https://shop.harvard.com/book/9783319861906.

Haddadpajouh, Hamed, Ali Dehghantanha, Raouf Khayami, and Kim-Kwang Raymond Choo. 2018. "A Deep Recurrent Neural Network Based Approach for Internet of Things Malware Threat Hunting." *Future Generation Computer Systems* 85 (March). https://doi.org/10.1016/j.future.2018.03.007.

Hadfield-Menell, Dylan, Anca Dragan, Pieter Abbeel, and Stuart Russell. 2017. "The Off-Switch Game," 220–27.

Haenlein, Michael, and Andreas Kaplan. 2019. "A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence." *California Management Review* 61 (4): 5–14. https://doi.org/10.1177/0008125619864925.

Haigh, Karen Zita, and Julia Andrusenko. 2021. *Cognitive Electronic Warfare: An Artificial Intelligence Approach*. Artech House.

Haikonen, Pentti O. 2003. *The Cognitive Approach to Conscious Machines*. Imprint Academic.

———. 2019. *Consciousness And Robot Sentience (Second Edition)*. World Scientific.

Hammer, Roy David, and 常二高倉. 1999. "海外活動報告 New Approaches to Psychodrama." 心理劇 / 日本心理劇学会編集委員会 編 1 (December):79〜84.

Han, Go. 2016. "Origins of Human Intelligence: The Chain of Tool-Making and Brain Evolution." *Anthropological Notebooks* 22 (April):5–22.

Harari, Yuval Noah. 2018. "Why Technology Favors Tyranny." *Democracy Digest* (blog). September 4, 2018. https://www.demdigest.org/why-technology-favors-tyranny/.

Harding, John. 2012. "Beyond Abortion: Human Genetics and the New Eugenics." *Pepperdine Law Review* 18 (3). https://digitalcommons.pepperdine.edu/plr/vol18/iss3/3.

Harnad, Stevan. 2001. "What's Wrong and Right About Searle's Chinese Room Argument?" In *[Book Chapter] (in Press)*, edited by Michael A. Bishop and John M. Preston. Oxford University Press.

Harrison, Peter, and Joseph Wolyniak. 2015. "The History of 'Transhumanism.'" *Notes and Queries* 62 (3): 465–67. https://doi.org/10.1093/notesj/gjv080.

Hart, David, and Ben Goertzel. 2016. "OpenCog: A Software Framework for Integrative Artificial General Intelligence." https://web.archive.org/web/20160304205408/http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.366.621&rep=rep1&type=pdf.

Hasan, Mahmudul, Md Islam, Ishrak Islam, and M.M.A. Hashem. 2019. "Attack and Anomaly Detection in IoT Sensors in IoT Sites Using Machine Learning Approaches," May, 100059. https://doi.org/10.1016/j.iot.2019.100059.

Hatmaker, Taylor. 2017. "Saudi Arabia Bestows Citizenship on a Robot Named Sophia." *TechCrunch* (blog). October 26, 2017. https://techcrunch.com/2017/10/26/saudi-arabia-robot-citizen-sophia/.

Haugeland, John. 1985. *Artificial Intelligence: The Very Idea*. Cambridge: MIT Press.

Hawking, Stephen. 1996. "Life in the Universe." 1996. https://www.hawking.org.uk/in-words/lectures/life-in-the-universe.

———. 2014. "Transcendence Looks at the Implications of Artificial Intelligence - but Are We Taking AI Seriously Enough?" *The Independent*, May 1, 2014, sec. News. https://www.independent.co.uk/news/science/stephen-hawking-transcendence-looks-at-the-implications-of-artificial-intelligence-but-are-we-taking-ai-seriously-enough-9313474.html.

———. 2018. *Brief Answers to the Big Questions: The Final Book from Stephen Hawking*. Hachette UK.

Hayes, P. J. 1981. "The Logic of Frames." In *Readings in Artificial Intelligence*, edited by Bonnie Lynn Webber and Nils J. Nilsson, 451–58. Morgan Kaufmann. https://doi.org/10.1016/B978-0-934613-03-3.50034-9.

Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: University of Chicago Press. https://press.uchicago.edu/ucp/books/book/chicago/H/bo3769963.html.

Heaven, Will Douglas. 2022. "The New Version of GPT-3 Is Much Better Behaved (and Should Be Less Toxic)." MIT Technology Review. 2022. https://www.technologyreview.com/2022/01/27/1044398/new-gpt3-openai-chatbot-language-model-ai-toxic-misinformation/.

Heimann, Rich. 2022. "How the Philosophy of Mind and Consciousness Has Affected AI Research." TNW | Deep-Tech. April 17, 2022. https://thenextweb.com/news/how-philosophy-of-mind-and-consciousness-has-affected-ai-research.

Henderson, Mark. 2007. "Human Rights for Robots? We're Getting Carried Away," 2007, sec. unknown section. https://www.thetimes.co.uk/article/human-rights-for-robots-were-getting-carried-away-xfbdkpgwn0v.

Henke, Stottler. 2013. "Glossary | Stottler Henke." September 12, 2013. https://stottlerhenke.com/artificial-intelligence/glossary/.

Herbrechter, Stefan, Ivan Callus, Manuela Rossini, Marija Grech, Megen de Bruin-Molé, and Christopher John Müller. 2022. *Palgrave Handbook of Critical Posthumanism*. Springer Nature.

Heyes, Cecilia. 2012. "New Thinking: The Evolution of Human Cognition." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2091–96. https://doi.org/10.1098/rstb.2012.0111.

Hibbard, Bill. 2016. "Open Source AI." https://www.ssec.wisc.edu/~billh/g/hibbard_agi_workshop.pdf.

Hinton, Geoffrey. 2009. "Deep Belief Networks." *Scholarpedia* 4 (January):5947. https://doi.org/10.4249/scholarpedia.5947.

HLEG. 2019. *Ethics Guidelines for Trustworthy AI*. Publications Office of the European Union. https://data.europa.eu/doi/10.2759/346720.

Hobbes, Thomas. 1655. *Elementorum philosophiae sectio prima De corpore*. Excusum sumptibus Andreae Crook sub signo Draconis viridis in Coemeterio B. Pauli.

Hochreiter, Sepp, and Jürgen Schmidhuber. 1997. "Long Short-Term Memory." *Neural Computation* 9 (December):1735–80. https://doi.org/10.1162/neco.1997.9.8.1735.

Hofstadter, Douglas R. 1999. *Godel, Escher, Bach: An Eternal Golden Braid*. Basic Books.

Hopfield, J J. 1982. "Neural Networks and Physical Systems with Emergent Collective Computational Abilities." *Proceedings of the National Academy of Sciences* 79 (8): 2554–58. https://doi.org/10.1073/pnas.79.8.2554.

Horst, Steven. 2005. "The Computational Theory of Mind." In *Stanford Encyclopedia of Philosophy*.

House of Lords. 2017. "AI in the UK: Ready, Willing and Able? - Artificial Intelligence Committee." 2017. https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/10002.htm.

Hsu, Jeremy. 2012. "Control Dangerous AI before It Controls Us, One Expert Says." NBC News. March 1, 2012. https://www.nbcnews.com/id/wbna46590591.

Huang, Ting, and Christopher Smith. 2006. "The History of Artificial Intelligence." In . https://www.semanticscholar.org/paper/The-History-of-Artificial-Intelligence-Huang-Smith/085599650ebfcfba0dcb434bc50b7c7c54fdbf05.

Huemer, Wolfgang. 2019. "Franz Brentano." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2019. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/spr2019/entries/brentano/.

Hughes, James J. 2004. *Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future*. New York, NY, USA: Basic Books.

Hume, David. 1978. *A Treatise of Human Nature*. Clarendon Press.

Humphreys, Lloyd G. 1979. "The Construct of General Intelligence." *Intelligence* 3 (2): 105–20. https://doi.org/10.1016/0160-2896(79)90009-6.

IEEE Spectrum. 2008. "Tech Luminaries Address Singularity - IEEE Spectrum." 2008. https://spectrum.ieee.org/tech-luminaries-address-singularity.

IGM Chicago. 2017. "Robots and Artificial Intelligence." *Clark Center Forum* (blog). 2017. https://www.kentclarkcenter.org/surveys/robots-and-artificial-intelligence/.

Ingold, David, and Spencer Soper. 2016. "Amazon Doesn't Consider the Race of Its Customers. Should It?" Bloomberg.Com. 2016. http://www.bloomberg.com/graphics/2016-amazon-same-day/.

International Bioethics Committee. 2015. "Report of the IBC on Updating Its Reflection on the Human Genome and Human Rights." http://unesdoc.unesco.org/images/0023/002332/233258E.pdf.

Iriki, Atsushi, and Osamu Sakura. 2008. "The Neuroscience of Primate Intellectual Evolution: Natural Selection and Passive and Intentional Niche Construction." *Philosophical Transactions of the Royal Society B: Biological Sciences* 363 (1500): 2229–41. https://doi.org/10.1098/rstb.2008.2274.

Ito, Joi. 2019. "Adversarial Attacks on Medical Machine Learning." MIT Media Lab. 2019. https://www.media.mit.edu/publications/adversarial-attacks-on-medical-machine-learning/.

Jablonka, Eva, Simona Ginsburg, and Daniel Dor. 2012. "The Co-Evolution of Language and Emotions." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2152–59. https://doi.org/10.1098/rstb.2012.0117.

Jackson, Frank. 1986. "What Mary Didn't Know." *The Journal of Philosophy* 83 (5): 291–95. https://doi.org/10.2307/2026143.

Jandrić, Petar, Jeremy Knox, Tina Besley, Thomas Ryberg, Juha Suoranta, and Sarah Hayes. 2018. "Postdigital Science and Education." *Educational Philosophy and Theory* 50 (10): 893–99. https://doi.org/10.1080/00131857.2018.1454000.

Javed, Yousra, and Navid Rajabi. 2020. "Multi-Layer Perceptron Artificial Neural Network Based IoT Botnet Traffic Classification." In , 973–84. https://doi.org/10.1007/978-3-030-32520-6_69.

Jia, Bin, Zhaowen Lin, and Yan Ma. 2015. *Advanced Persistent Threat Detection Method Research Based on Relevant Algorithms to Artificial Immune System*. Vol. 520. https://doi.org/10.1007/978-3-662-47401-3_29.

Jobin, Anna, Marcello Ienca, and Effy Vayena. 2019. "The Global Landscape of AI Ethics Guidelines." *Nature Machine Intelligence* 1 (9): 389–99. https://doi.org/10.1038/s42256-019-0088-2.

Johnson, Mark. 2013. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. University of Chicago Press.

Joint Research Centre (European Commission), Blagoj Delipetrev, Chrisa Tsinaraki, and Uroš Kostić. 2020. *AI Watch, Historical Evolution of Artificial Intelligence: Analysis of the Three Main Paradigm Shifts in AI*. Publications Office of the European Union. https://data.europa.eu/doi/10.2760/801580.

Joint Research Centre (European Commission), S. Samoili, M. López Cobo, E. Gómez, G. De Prato, F. Martínez-Plumed, and B. Delipetrev. 2020. *AI Watch: Defining Artificial Intelligence : Towards an Operational Definition and Taxonomy of Artificial Intelligence*. Publications Office of the European Union. https://data.europa.eu/doi/10.2760/382730.

Jones, Chris. 2018. "Experience and Networked Learning." In , 39–55. https://doi.org/10.1007/978-3-319-74857-3_3.

Jones, Dwight Gilbert. 2019. *Church of Man*. Independently Published.

Jordan, Gregory E. 2006. "Apologia for Transhumanist Religion." *Journal of Evolution and Technology* 15 (1): 55–72.

Jordan, M. I., and T. M. Mitchell. 2015. "Machine Learning: Trends, Perspectives, and Prospects." *Science* 349 (6245): 255–60. https://doi.org/10.1126/science.aaa8415.

Joy, Bill. 2000. "Why the Future Doesn't Need Us." *Wired*, 2000. https://www.wired.com/2000/04/joy-2/.

Kaas, Jon H, Georg F. Striedter, Theodore H. Bullock, Todd M. Preuss, John Rubenstein, and Leah A. Krubitzer. 2016. "Evolution of Nervous Systems - 2nd Edition | Elsevier Shop." 2016. https://shop.elsevier.com/books/evolution-of-nervous-systems/striedter/978-0-12-804042-3.

Kadlecová, Lucie, Nadia Meyer, Rafaël Cos, and Pauline Ravinet. 2020. "Mapping the Role of Science Diplomacy in the Cyber Field."

Kamarck, Elaine. 2018. "Malevolent Soft Power, AI, and the Threat to Democracy." Brookings. 2018. https://www.brookings.edu/articles/malevolent-soft-power-ai-and-the-threat-to-democracy/.

Kant, Immanuel, Nicholas Walker, and James Creed Meredith, eds. 2008. *Critique of Judgement*. Oxford World's Classics. Oxford, New York: Oxford University Press.

Kerry, Cameron F. 2020. "Protecting Privacy in an AI-Driven World." Brookings. 2020. https://www.brookings.edu/articles/protecting-privacy-in-an-ai-driven-world/.

Kharpal, Arjun. 2017. "China Wants to Be a $150 Billion World Leader in AI in Less than 15 Years." CNBC. July 21, 2017. https://www.cnbc.com/2017/07/21/china-ai-world-leader-by-2030.html.

Khatchadourian, Raffi. 2015. "The Doomsday Invention." The New Yorker. November 16, 2015. https://www.newyorker.com/magazine/2015/11/23/doomsday-invention-artificial-intelligence-nick-bostrom.

Kim, Jaegwon. 2006. *Philosophy of Mind (Second Edition)*. Boulder: Westview Press.

Klichowski, Michał. 2015. "Transhumanism and the Idea of Education in the World of Cyborgs." Adam Mickiewicz University Press.

Klug, William S., Michael R. Cummings, Charlotte A. Spencer, and Michael A. Palladino. 2014. *Concepts of Genetics*. Pearson Education.

Kluger, Jeffrey. 2010. "Inside the Minds of Animals." *Time*, May 8, 2010. https://content.time.com/time/magazine/article/0,9171,2008867,00.html.

Koch, Christof. 2004. *The Quest for Consciousness: A Neurobiological Approach*. Roberts and Company.

Kreisler, Harry. 2006. "Conversations with History: Hubert Dreyfus | Institute of International Studies." 2006. https://iis.berkeley.edu/file/1104.

Krimsky, Sheldon, and Kathleen Sloan. 2011. *Race and the Genetic Revolution: Science, Myth, and Culture*. Columbia University Press.

Kritikos, Mihalis. 2019. "Artificial Intelligence Ante Portas: Legal & Ethical Reflections | Think Tank | European Parliament." 2019. https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2019)634427.

Krizhevsky, Alex, Ilya Sutskever, and Geoffrey E. Hinton. 2017. "ImageNet Classification with Deep Convolutional Neural Networks." *Communications of the ACM* 60 (6): 84–90. https://doi.org/10.1145/3065386.

Kuhn, Thomas S. 1996. *The Structure of Scientific Revolutions* (version 3rd edition). 3rd edition. Chicago, IL: University of Chicago Press.

Kunzmann, Ute, and Judith Glück. 2019. "Wisdom and Emotion." The Cambridge Handbook of Wisdom. March 2019. https://doi.org/10.1017/9781108568272.027.

Kurzweil, Ray, ed. 1990. *The Age of Intelligent Machines*. MIT Press.

———. 2005. *The Singularity Is Near: When Humans Transcend Biology*. Viking.

———. 2014. "The Singularity Is Near." In *Ethics and Emerging Technologies*, edited by Ronald L. Sandler, 393–406. London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137349088_26.

LaForte, Geoffrey, Patrick Hayes, and Kenneth Ford. 1998. "Why Gödel's Theorem Cannot Refute Computationalism." *Artificial Intelligence* 104 (September):265–86. https://doi.org/10.1016/S0004-3702(98)00052-6.

Lakatos, Imre. 1978. "The Methodology of Scientific Research Programmes." Cambridge Core. 1978. https://doi.org/10.1017/CBO9780511621123.

Lakhwani, Kamlesh, Hemant Kumar Gianey, Joseph Kofi Wireko, and Kamal Kant Hiran. 2020. *Internet of Things (IoT): Principles, Paradigms and Applications of IoT*. Place of publication not identified: BPB Publications. https://proxy.library.cornell.edu/sso/skillport?context=151247.

Lakoff, George, and Mark Johnson. 1999. *Philosophy In The Flesh: The Embodied Mind And Its Challenge To Western Thought*. Basic Books.

Lamb, David. 1988. *Down the Slippery Slope: Arguing in Applied Ethics*. Routledge.

Langley, Pat. 2011. "The Changing Science of Machine Learning." *Machine Learning* 82 (3): 275–79. https://doi.org/10.1007/s10994-011-5242-y.

Laskey, Kathryn. 2019. "A Quantum Model of Non-Illusory Free Will." In , 77–89. https://doi.org/10.1007/978-3-030-21908-6_7.

Law Library of Congress (U.S.), ed. 2019. *Regulation of Artificial Intelligence in Selected Jurisdictions*. Washington, D.C: The Law Library of Congresss, Staff of the Global Legal Research Directorate.

Le, Quoc V., Marc'Aurelio Ranzato, Rajat Monga, Matthieu Devin, Kai Chen, Greg S. Corrado, Jeff Dean, and Andrew Y. Ng. 2012. "Building High-Level Features Using Large Scale Unsupervised Learning." arXiv. https://doi.org/10.48550/arXiv.1112.6209.

LeCun, Y., B. Boser, J. S. Denker, D. Henderson, R. E. Howard, W. Hubbard, and L. D. Jackel. 1989. "Backpropagation Applied to Handwritten Zip Code Recognition." *Neural Computation* 1 (4): 541–51. https://doi.org/10.1162/neco.1989.1.4.541.

Lecun, Y., L. Bottou, Y. Bengio, and P. Haffner. 1998. "Gradient-Based Learning Applied to Document Recognition." *Proceedings of the IEEE* 86 (11): 2278–2324. https://doi.org/10.1109/5.726791.

LeCun, Yann, Yoshua Bengio, and Geoffrey Hinton. 2015. "Deep Learning." *Nature* 521 (7553): 436–44. https://doi.org/10.1038/nature14539.

Legg, Shane, and Marcus Hutter. 2007a. "A Collection of Definitions of Intelligence." arXiv. https://doi.org/10.48550/arXiv.0706.3639.

———. 2007b. "Universal Intelligence: A Definition of Machine Intelligence." *Minds and Machines* 17 (4): 391–444. https://doi.org/10.1007/s11023-007-9079-x.

Leibniz, Gottfried. 2017. *The Monadology*. CreateSpace Independent Publishing Platform.

Levin, Susan B. 2017. "Antiquity's Missive to Transhumanism1." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 42 (3): 278–303. https://doi.org/10.1093/jmp/jhx008.

Levy, David. 2009. "The Ethical Treatment of Artificially Conscious Robots." *International Journal of Social Robotics* 1 (3): 209–16. https://doi.org/10.1007/s12369-009-0022-6.

Lewis, Hannah M., and Kevin N. Laland. 2012. "Transmission Fidelity Is the Key to the Build-up of Cumulative Culture." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2171–80. https://doi.org/10.1098/rstb.2012.0119.

Li, Huiqin, Yanling Li, Chuan He, Jianwei Zhan, and Hui Zhang. 2021. "Cognitive Electronic Jamming Decision-Making Method Based on Improved Q -Learning Algorithm." *International Journal of Aerospace Engineering* 2021 (December):1–12. https://doi.org/10.1155/2021/8647386.

Liao, Xiaofeng, Bo Li, and Bo Yang. 2018. "A Novel Classification and Identification Scheme of Emitter Signals Based on Ward's Clustering and Probabilistic Neural Networks with Correlation Analysis." *Computational Intelligence and Neuroscience* 2018 (November):e1458962. https://doi.org/10.1155/2018/1458962.

Lin, Min, Qiang Chen, and Shuicheng Yan. 2013. "Network In Network." *CoRR*, December. https://www.semanticscholar.org/paper/Network-In-Network-Lin-Chen/5e83ab70d0cbc003471e87ec306d27d9c80ecb16.

Lind, Georg. 2008. "The Meaning and Measurement of Moral Judgment Competence. A Dual-Aspect Model," January.

Linden, Stanton J. 2003. *The Alchemy Reader: From Hermes Trismegistus to Isaac Newton*. Cambridge University Press.

Liu, Feng, Yong Shi, and Ying Liu. 2017. "Intelligence Quotient and Intelligence Grade of Artificial Intelligence." *Annals of Data Science* 4 (2): 179–91. https://doi.org/10.1007/s40745-017-0109-0.

Lodder, Jerry. 2009. "Binary Arithmetic: From Leibniz to von Neumann," January. https://doi.org/10.5948/UPO9780883859742.023.

Lohr, Steve. 2016. "IBM Is Counting on Its Bet on Watson, and Paying Big Money for It." *The New York Times*, October 17, 2016, sec. Technology. https://www.nytimes.com/2016/10/17/technology/ibm-is-counting-on-its-bet-on-watson-and-paying-big-money-for-it.html.

Longo, Giuseppe O. 2003. *Il simbionte: prove di umanità futura*. Meltemi Editore srl.

Lowry, Stella, and Gordon Macpherson. 1988. "A Blot on the Profession." *British Medical Journal (Clinical Research Ed.)* 296 (6623): 657–58.

Luger, George F., and William A. Stubblefield. 1993. *Artificial Intelligence: Structures and Strategies for Complex Problem Solving*. Benjamin/Cummings Publishing Company.

Luker, Paul A., and Dennis Rothermel. 1994. "The Philosophy of Artificial Intelligence: A General Studies Course with Particular Benefits to Computer Science Majors." *ACM SIGCSE Bulletin* 26 (1): 41–45. https://doi.org/10.1145/191033.191050.

MacDougald, Park. 2015. "The Darkness Before the Right - The Awl." 2015. https://web.archive.org/web/20160517115445/http://www.theawl.com/2015/09/good-luck-to-human-kind.

Maclure, Jocelyn. 2021. "AI, Explainability and Public Reason: The Argument from the Limitations of the Human Mind." *Minds and Machines* 31 (3): 421–38. https://doi.org/10.1007/s11023-021-09570-x.

Magnuson, Markus Amalthea. 2015. "What Is Transhumanism?" What Is Transhumanism? 2015. https://whatistranshumanism.org/.

Manhas, Jatinder, and Shallu Kotwal. 2021. "Implementation of Intrusion Detection System for Internet of Things Using Machine Learning Techniques." In , edited by Kaiser J. Giri, Shabir Ahmad Parah, Rumaan Bashir, and Khan Muhammad, 217–37. Algorithms for Intelligent Systems. Singapore: Springer Singapore. https://doi.org/10.1007/978-981-15-8711-5_11.

Mano, M. Morris. 2017. *Digital Logic and Computer Design*. Pearson India.

Manyika, James. 2022. "Getting AI Right: Introductory Notes on AI & Society." *Daedalus* 151 (2): 5–27. https://doi.org/10.1162/daed_e_01897.

Manzotti, Riccardo, and Antonio Chella. 2018. "Good Old-Fashioned Artificial Consciousness and the Intermediate Level Fallacy." 2018. https://www.frontiersin.org/articles/10.3389/frobt.2018.00039/full.

Marcus Aurelius, A. S. L Farquharson, R. B Rutherford, Marcus Aurelius, and Marcus Cornelius Fronto. 1990. *The Meditations of Marcus Aurelius*. Oxford; New York: Oxford University Press.

Margolis, Edited by Eric, Richard Samuels, and and Stephen P. Stich, eds. 2012. *The Oxford Handbook of Philosophy of Cognitive Science*. Oxford Handbooks. Oxford, New York: Oxford University Press.

Markoff, John. 2009. "Scientists Worry Machines May Outsmart Man." *The New York Times*, July 25, 2009, sec. Science. https://www.nytimes.com/2009/07/26/science/26robot.html.

———. 2016. “When Is the Singularity? Probably Not in Your Lifetime.” *The New York Times*, April 7, 2016, sec. Science. https://www.nytimes.com/2016/04/07/science/artificial-intelligence-when-is-the-singularity.html.

Marr, Bernard. 2023. “Beyond The Hype: What You Really Need To Know About AI In 2023.” Forbes. 2023. https://www.forbes.com/sites/bernardmarr/2023/03/20/beyond-the-hype-what-you-really-need-to-know-about-ai-in-2023/.

Mattu, Julia Angwin, Jeff Larson,Lauren Kirchner,Surya. 2020. “Machine Bias.” ProPublica. 2020. https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing.

McCarthy, John. 1979. “Ascribing Mental Qualities to Machines.” In *Philosophical Perspectives in Artificial Intelligence*, edited by Martin Ringle. Humanities Press.

———. 1996. “Making Robots Conscious of Their Mental States.” In *Machine Intelligence 15*, edited by S. Muggleton. Oxford University Press.

———. 2000. *Defending AI Research: A Collection of Essays and Reviews*. CSLI Publications.

———. 2006. “What Has AI in Common with Philosophy?” 2006. http://jmc.stanford.edu/articles/aiphil.html.

———. 2007a. “[AI@50] AI Past, Present, Future.” January 3, 2007. https://web.archive.org/web/20070103222615/http://www.engagingexperience.com/2006/07/ai50_ai_past_pr.html.

———. 2007b. “From Here to Human-Level AI.” *Artificial Intelligence*, Special Review Issue, 171 (18): 1174–82. https://doi.org/10.1016/j.artint.2007.10.009.

McCarthy, John, and Patrick Hayes. 1969. “Some Philosophical Problems From the Standpoint of Artificial Intelligence.” In *Machine Intelligence 4*, edited by B. Meltzer and Donald Michie, 463–502. Edinburgh University Press.

McCarthy, John, Marvin L. Minsky, Nathaniel Rochester, and Claude E. Shannon. 2006. “A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence, August 31, 1955.” *AI Magazine* 27 (4): 12–12. https://doi.org/10.1609/aimag.v27i4.1904.

McCorduck, Pamela. 2004. *Machines Who Think: A Personal Inquiry Into the History and Prospects of Artificial Intelligence*. Taylor & Francis.

McCulloch, Warren S., and Walter Pitts. 1943. “A Logical Calculus of the Ideas Immanent in Nervous Activity.” *The Bulletin of Mathematical Biophysics* 5 (4): 115–33. https://doi.org/10.1007/BF02478259.

McDermott, Christopher D., Farzan Majdani, and Andrei V. Petrovski. 2018. “Botnet Detection in the Internet of Things Using Deep Learning Approaches.” In *2018 International Joint Conference on Neural Networks (IJCNN)*, 1–8. https://doi.org/10.1109/IJCNN.2018.8489489.

McGaughey, Ewan. 2018. “Will Robots Automate Your Job Away? Full Employment, Basic Income, and Economic Democracy.” SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.3044448.

Mcginn, Colin. 2000. *The Mysterious Flame: Conscious Minds in a Material World*. Basic Books.

McKibben, Bill. 2003. *Enough: Staying Human in an Engineered Age*. Henry Holt and Company.

McNamee, M J, and S D Edwards. 2006. “Transhumanism, Medical Technology and Slippery Slopes.” *Journal of Medical Ethics* 32 (9): 513–18. https://doi.org/10.1136/jme.2005.013789.

Meleis, Afaf Ibrahim PhD. 1998. “A Passion for Making a Difference: ReVisions for Empowerment.” *Scholarly Inquiry for Nursing Practice* 12 (1): 87.

Metaxiotis, Kostas, and J-E Samouilidis. 2000. "Expert Systems in Medicine: Academic Illusion or Real Power?" *Information Management & Computer Security* 8 (May):75–79. https://doi.org/10.1108/09685220010694017.

Mettrie, Julien Offray de La. 1996. *La Mettrie: Machine Man and Other Writings*. Cambridge University Press.

Metz, Cade. 2016. "Inside OpenAI, Elon Musk's Wild Plan to Set Artificial Intelligence Free." *Wired*, 2016. https://www.wired.com/2016/04/openai-elon-musk-sam-altman-plan-to-set-artificial-intelligence-free/.

Miah, Andy. 2009. "A Critical History of Posthumanism." In , 71–94. https://doi.org/10.1007/978-1-4020-8852-0_6.

Michie, Donald. 1963. "Experiments on the Mechanization of Game-Learning Part I. Characterization of the Model and Its Parameters." *The Computer Journal* 6 (3): 232–36. https://doi.org/10.1093/comjnl/6.3.232.

Micro Monsters 3D. 2013. Documentary. Colossus Productions.

Microsoft. 2009. "The STRIDE Threat Model." November 12, 2009. https://learn.microsoft.com/en-us/previous-versions/commerce-server/ee823878(v=cs.20).

Miller, Geoffrey. 2001. *The Mating Mind: How Sexual Choice Shaped the Evolution of Human Nature*. Knopf Doubleday Publishing Group.

Minsky, Marvin. 1968. *Semantic Information Processing*. MIT Press.

———. 1986. *The Society of Mind*. Simon and Schuster.

———. 2009. "The Age of Intelligent Machines: Thoughts About Artificial Intelligence." June 28, 2009. https://web.archive.org/web/20090628081048/http://www.kurzweilai.net/articles/art0100.html?printable=1.

Minsky, Marvin L. 1967. *Computation: Finite and Infinite Machines*. USA: Prentice-Hall, Inc.

Minsky, Marvin, and Seymour Papert. 1988. *Perceptrons: An Introduction to Computational Geometry*. Cambridge.

Mirkes, Renée. 2019. "Transhumanist Medicine: Can We Direct Its Power to the Service of Human Dignity?" *The Linacre Quarterly* 86 (1): 115–26. https://doi.org/10.1177/0024363919838134.

Mnih, Volodymyr, Koray Kavukcuoglu, David Silver, Andrei A. Rusu, Joel Veness, Marc G. Bellemare, Alex Graves, et al. 2015. "Human-Level Control through Deep Reinforcement Learning." *Nature* 518 (7540): 529–33. https://doi.org/10.1038/nature14236.

Moll, Henrike. 2018. "The Transformative Cultural Intelligence Hypothesis: Evidence from Young Children's Problem-Solving." *Review of Philosophy and Psychology* 9 (1): 161–75. https://doi.org/10.1007/s13164-017-0342-7.

Montavon, Grégoire, Wojciech Samek, and Klaus-Robert Müller. 2018. "Methods for Interpreting and Understanding Deep Neural Networks." *Digital Signal Processing* 73 (February):1–15. https://doi.org/10.1016/j.dsp.2017.10.011.

Montgomery, Douglas C., Elizabeth A. Peck, and G. Geoffrey Vining. 2012. *Introduction to Linear Regression Analysis*. John Wiley & Sons.

Monti, E. J., and M. S. Tingen. 1999. "Multiple Paradigms of Nursing Science." *ANS. Advances in Nursing Science* 21 (4): 64–80. https://doi.org/10.1097/00012272-199906000-00010.

Moor, James H. 2009. "Four Kinds of Ethical Robots | Issue 72 | Philosophy Now." 2009. https://philosophynow.org/issues/72/Four_Kinds_of_Ethical_Robots.

Moor, J.H. 2006. "The Nature, Importance, and Difficulty of Machine Ethics." *IEEE Intelligent Systems* 21 (4): 18–21. https://doi.org/10.1109/MIS.2006.80.

Moravec, Hans P. 1988. *Mind Children: The Future of Robot and Human Intelligence*. Harvard University Press.

Moravec, Hans P., Stanford, and California 94305. 1976. "The Role of Raw Power in Intelligence." The History of Artificial Intelligence - Spotlight at Stanford. 1976. https://exhibits.stanford.edu/ai/catalog/ws563sd6050.

More, Max. 1990. "Transhumanism: A Futurist Philosophy." 1990. https://web.archive.org/web/20051029125153/http://www.maxmore.com/transhum.htm.

More, Max, and Natasha Vita-More. 2013. *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*. John Wiley & Sons.

Mori, Masahiro, Karl F. MacDorman, and Norri Kageki. 2012. "The Uncanny Valley [From the Field]." *IEEE Robotics & Automation Magazine* 19 (2): 98–100. https://doi.org/10.1109/MRA.2012.2192811.

Morton, Timothy. 2019. "Being Ecological." MIT Press. 2019. https://mitpress.mit.edu/9780262537124/being-ecological/.

Muehlhauser, Luke. 2013. "What Is AGI?" Machine Intelligence Research Institute. August 11, 2013. https://intelligence.org/2013/08/11/what-is-agi/.

Müller, Vincent C. 2023. "Ethics of Artificial Intelligence and Robotics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta and Uri Nodelman, Fall 2023. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/fall2023/entries/ethics-ai/.

Müller, Vincent C., and Nick Bostrom. 2016. "Future Progress in Artificial Intelligence: A Survey of Expert Opinion." In *Fundamental Issues of Artificial Intelligence*, edited by Vincent C. Müller, 555–72. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-26485-1_33.

Müller-Merbach, Prof. Dr. Heiner. 2007. "Technical and Emotional Intelligence - Friends or Enemies?" *IFAC Proceedings Volumes*, 10th IFAC,IFIP,IFORS,IEA Symposium on Analysis, Design, and Evaluation of Human-Machine Systems, 40 (16): 403–8. https://doi.org/10.3182/20070904-3-KR-2922.00071.

Murgia, Madhumita. 2023. "Transformers: The Google Scientists Who Pioneered an AI Revolution." 2023. https://www.ft.com/content/37bb01af-ee46-4483-982f-ef3921436a50.

Musgrave, Zach, and Bryan W. Roberts. 2015. "Why Humans Need To Ban Artificially Intelligent Weapons." *The Atlantic* (blog). August 14, 2015. https://www.theatlantic.com/technology/archive/2015/08/humans-not-robots-are-the-real-reason-artificial-intelligence-is-scary/400994/.

Muthukrishna, Michael, Michael Doebeli, Maciej Chudek, and Joseph Henrich. 2018. "The Cultural Brain Hypothesis: How Culture Drives Brain Expansion, Sociality, and Life History." *PLOS Computational Biology* 14 (11): e1006504. https://doi.org/10.1371/journal.pcbi.1006504.

Nayar, Pramod K. 2014. *Posthumanism*. Polity.

Needham, Joseph, and Ling Wang. 1956. *Science and Civilisation in China: Volume 2, History of Scientific Thought*. Cambridge University Press.

Newell, Allen, J. C. Shaw, and Herbert A. Simon. 1962. "The Processes of Creative Thinking." In *Contemporary Approaches to Creative Thinking: A Symposium Held at the University of*

Colorado, 63–119. The Atherton Press Behavioral Science Series. New York, NY, US: Atherton Press. https://doi.org/10.1037/13117-003.

Newell, Allen, and Herbert A. Simon. 1976. "Computer Science as Empirical Inquiry: Symbols and Search." *Communications of the ACM* 19 (3): 113–26. https://doi.org/10.1145/360018.360022.

Newman, Stuart A. 2003. "Averting the Clone Age: Prospects and Perils of Human Developmental Manipulation." *The Journal of Contemporary Health Law and Policy* 19 (2): 431–63.

Newquist, Harvey P. 1994. *The Brain Makers*. Sams Pub.

Ng, Yew-Kwang. 2023. "Could Artificial Intelligence Have Consciousness? Some Perspectives from Neurology and Parapsychology." *AI & SOCIETY* 38 (1): 425–36. https://doi.org/10.1007/s00146-021-01305-x.

Nield, Thomas. 2019. "Is Deep Learning Already Hitting Its Limitations?" Medium. September 11, 2019. https://towardsdatascience.com/is-deep-learning-already-hitting-its-limitations-c81826082ac3.

Nilsson, N. J. 1984. "The SRI Artificial Intelligence Center: A Brief History." *SRI* (blog). January 1, 1984. https://www.sri.com/publication/artificial-intelligence-pubs/the-sri-artificial-intelligence-center-a-brief-history/.

Nilsson, Nils J. 1998. *Artificial Intelligence: A New Synthesis*. Morgan Kaufmann.

Nowzari, Hessam, and Michael Jorgensen. 2022. "Human Dento-Facial Evolution: Cranial Capacity, Facial Expression, Language, Oral Complications and Diseases." *Oral* 2 (2): 163–72. https://doi.org/10.3390/oral2020016.

O'Connor, Kathleen Malone. 1994. "The Alchemical Creation of Life (Takwin) and Other Concepts of Genesis in Medieval Islam." Thesis Ph. D.--University of Pennsylvania.

OECD. 2024a. "AI-Principles Overview." 2024. https://oecd.ai/en/principles.

———. 2024b. "OECD Legal Instruments." 2024. https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449.

Olness, Karen. 2003. "Effects on Brain Development Leading to Cognitive Impairment: A Worldwide Epidemic." *Journal of Developmental & Behavioral Pediatrics* 24 (2): 120.

OpenAI. 2018. "OpenAI Five." 2018. https://openai.com/research/openai-five.

Oppy, Graham, and David Dowe. 2021. "The Turing Test." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Winter 2021. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/win2021/entriesuring-test/.

Orseau, Laurent, and S. Armstrong. 2016. "Safely Interruptible Agents." In . https://www.semanticscholar.org/paper/Safely-Interruptible-Agents-Orseau-Armstrong/ac70bb2458f01a9e47fc1afe0dd478fb2feb8f50.

Ovid. 1955. *Metamorphoses*. Indiana University Press.

Oxford Reference. 2024. "Artificial Intelligence." Oxford Reference. 2024. https://doi.org/10.1093/oi/authority.20110803095426960.

Padgham, Lin, and Michael Winikoff. 2005. *Developing Intelligent Agent Systems: A Practical Guide*. John Wiley & Sons.

Palmer, Jason. 2009. "Call for Debate on Killer Robots," August 3, 2009. http://news.bbc.co.uk/2/hi/technology/8182003.stm.

Papernot, Nicolas, Patrick McDaniel, Ian Goodfellow, Somesh Jha, Z. Berkay Celik, and Ananthram Swami. 2017. "Practical Black-Box Attacks against Machine Learning." arXiv. https://doi.org/10.48550/arXiv.1602.02697.

Parfit, Derek. 1984. *Reasons and Persons*. OUP Oxford.

Park, Seong-Taek, Guozhong Li, and Jae-Chang Hong. 2020. "A Study on Smart Factory-Based Ambient Intelligence Context-Aware Intrusion Detection System Using Machine Learning." *Journal of Ambient Intelligence and Humanized Computing* 11 (4): 1405–12. https://doi.org/10.1007/s12652-018-0998-6.

Parke, Ross D., and Mary Gauvain. 2009. *Child Psychology: A Contemporary Viewpoint*. McGraw-Hill.

Partnership on AI. 2024. "Partnership on AI." Partnership on AI. 2024. https://partnershiponai.org/about/.

Pasquale, Frank. 2016. "The Black Box Society." Harvard University Press. 2016. https://www.hup.harvard.edu/books/9780674970847.

Pedreschi, D. 2020. "Artificial Intelligence (AI): New Developments and Innovations Applied to e-Commerce | Think Tank | European Parliament." 2020. https://www.europarl.europa.eu/thinktank/en/document/IPOL_IDA(2020)648791.

Pedreschi, Dino, Salvatore Ruggieri, and Franco Turini. 2008. *Discrimination-Aware Data Mining*. *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. https://doi.org/10.1145/1401890.1401959.

Pégny, Maël, and Issam Ibnouhsein. 2018. "Quelle Transparence Pour Les Algorithmes d'apprentissage Machine ?" https://hal.science/hal-01877760.

Peters, Michael A., and Tina Besley. 2019. "Critical Philosophy of the Postdigital." *Postdigital Science and Education* 1 (1): 29–42. https://doi.org/10.1007/s42438-018-0004-9.

Peters, Michael A., and Petar Jandrić. 2019. "Artificial Intelligence, Human Evolution, and the Speed of Learning." Edited by Jeremy Knox, Yuchen Wang, and Michael Gallagher, Perspectives on Rethinking and Reforming Education, , 195–206. https://doi.org/10.1007/978-981-13-8161-4_12.

Pfeifer, Rolf, and Josh Bongard. 2006. *How the Body Shapes the Way We Think: A New View of Intelligence*. The MIT Press. https://doi.org/10.7551/mitpress/3585.001.0001.

Philips, Jennifer. 2012. "Genetic Study Offers Clues to How Intelligence Changes through Life | News | The University of Aberdeen." 2012. https://www.abdn.ac.uk/news/4246/.

Piccinini, Gualtiero, and Sonya Bahar. 2013. "Neural Computation and the Computational Theory of Cognition." *Cognitive Science* 37 (3): 453–88. https://doi.org/10.1111/cogs.12012.

Pitrat, Jacques. 2013. "Artificial Beings: The Conscience of a Conscious Machine | Wiley." Wiley.Com. 2013. https://www.wiley.com/en-us/Artificial+Beings%3A+The+Conscience+of+a+Conscious+Machine-p-9781118617847.

Pizzi, Katia. 2017. "Pinocchio e il corpo meccanico: trasposizioni visive tra Jean-Jacques Grandville e Alfred Jarry - Arabeschi Rivista di studi su letteratura e visualità." Rivista Arabeschi. Arabeschi. 2017. http://www.arabeschi.it/11-pinocchio-e-il-corpo-meccanico-trasposizioni-visive-tra-jj-grandville-jarry/.

Plantinga, Alvin. 1986. "Epistemic Justification." *Noûs* 20 (1): 3–18. https://doi.org/10.2307/2215273.

Poe, Edgar Allan. 2022. *Maelzel's Chess-Player*. DigiCat.

Polonski, Slava. 2018. "Artificial Intelligence Can Save Democracy, Unless It Destroys It First." *Medium* (blog). February 4, 2018. https://medium.com/@slavaxyz/artificial-intelligence-can-save-democracy-unless-it-destroys-it-first-7b1257cb4285.

Poole, David Lynton, Alan K. Mackworth, and Randy Goebel. 1998. *Computational Intelligence: A Logical Approach*. Oxford University Press.

Porges, Stephen W. 2003. "Social Engagement and Attachment." *Annals of the New York Academy of Sciences* 1008 (1): 31–47. https://doi.org/10.1196/annals.1301.004.

Porter, Allen. 2017. "Bioethics and Transhumanism." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 42 (3): 237–60. https://doi.org/10.1093/jmp/jhx001.

Prinz, Jesse J. 2004. *Gut Reactions: A Perceptual Theory of Emotion*. Oup Usa.

Probst, Philipp, Marvin N. Wright, and Anne-Laure Boulesteix. 2019. "Hyperparameters and Tuning Strategies for Random Forest." *WIREs Data Mining and Knowledge Discovery* 9 (3): e1301. https://doi.org/10.1002/widm.1301.

Prudkov, Pavel. 1999. "Human Evolution Expanded Brains To Increase Motivational Ability, Not Expertise Capacity Commentary on Skoyles on Brain-Expertise." *Psycoloquy* 10 (May).

Putnam, Hilary. 1963. "Brains and Behavior." In *Analytical Philosophy: Second Series*, edited by Ronald J. Butler. Blackwell.

———. 1967. "Psychological Predicates." In *Art, Mind, and Religion*, edited by William H. Capitan and Daniel Davy Merrill, 37–48. University of Pittsburgh Press.

———. 1975. *Mind, Language, and Reality*. Cambridge University Press.

———. 1988. *Representation and Reality*. MIT Press.

Quinlan, J. R. 1986. "Induction of Decision Trees." *Machine Learning* 1 (1): 81–106. https://doi.org/10.1007/BF00116251.

Rachels, James. 1990. *Created From Animals: The Moral Implications of Darwinism*. New York: Oxford University Press.

Rachmadi, Salman, Satria Mandala, and Dita Oktaria. 2021. "Detection of DoS Attack Using AdaBoost Algorithm on IoT System." In *2021 International Conference on Data Science and Its Applications (ICoDSA)*, 28–33. https://doi.org/10.1109/ICoDSA53588.2021.9617545.

Rajmohan, V., and E. Mohandas. 2007. "Mirror Neuron System." *Indian Journal of Psychiatry* 49 (1): 66. https://doi.org/10.4103/0019-5545.31522.

Ramamoorthy, Anand, and Roman V. Yampolskiy. 2018. "Beyond Mad ? : The Race for Artificial General Intelligence." In . https://www.semanticscholar.org/paper/BEYOND-MAD-%3A-THE-RACE-FOR-ARTIFICIAL-GENERAL-Ramamoorthy-Yampolskiy/7371bb45f85d297fbad25dee15a6b7f089cd60df.

Ramsey, Paul. 1970. *Fabricated Man: The Ethics of Genetic Control*. 1st Paperback Edition edition. New Haven: Yale University Press.

———. 1979. "Genetic Engineering: Less Than Fully Adequate Arguments." *Hastings Center Report* 9 (6): 46–47. https://doi.org/10.2307/3561676.

Randell, Brian. 1982. "From Analytical Engine to Electronic Digital Computer: The Contributions of Ludgate, Torres, and Bush." *IEEE Annals of The History of Computing - ANNALS* 4 (October):327–41. https://doi.org/10.1109/MAHC.1982.10042.

Ranisch, Robert, and Stefan Sorgner. 2014. *Post- and Transhumanism: An Introduction*. https://doi.org/10.15496/publikation-738.

Ransbotham, Sam, David Kiron, Philipp Gerbert, and Martin Reeves. 2017. "Reshaping Business With Artificial Intelligence." *MIT Sloan Management Review*, September. https://sloanreview.mit.edu/projects/reshaping-business-with-artificial-intelligence/.

Raphael, Bertram. 1972. *Robot Research at Stanford Research Institute*. PN.

Reggia, J.A., D-W Huang, and G. Katz. 2015. "Beliefs Concerning the Nature of Consciousness." *Journal of Consciousness Studies* 22 (5–6): 146–71.

Rescorla, Michael. 2020. "The Computational Theory of Mind." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Fall 2020. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/fall2020/entries/computational-mind/.

Ribeiro, Marco Tulio, Sameer Singh, and Carlos Guestrin. 2016. "'Why Should I Trust You?': Explaining the Predictions of Any Classifier." arXiv. https://doi.org/10.48550/arXiv.1602.04938.

Rich, Elaine, and Kevin Knight. 1991. *Artificial Intelligence*. McGraw-Hill.

Richardson, Ken. 2017. "Human Intelligence." In *Genes, Brains, and Human Potential: The Science and Ideology of Intelligence*, edited by Ken Richardson, 0. Columbia University Press. https://doi.org/10.7312/columbia/9780231178426.003.0009.

Riva, Massimo. 2011. "Beyond the Mechanical Body: Digital Pinocchio." In *Pinocchio, Puppets, and Modernity*. Routledge.

Roberts, Jacob. 2016. "Thinking Machines: The Search for Artificial Intelligence." Science History Institute. 2016. https://www.sciencehistory.org/stories/magazine/thinking-machines-the-search-for-artificial-intelligence/.

Robitzski, Dan. 2018. "Five Experts Share What Scares Them the Most about AI." Futurism. September 5, 2018. https://futurism.com/artificial-intelligence-experts-fear.

Rodríguez, José Miguel Olazaran. 1991. *A Historical Sociology of Neural Network Research*. University of Edinburgh.

Roldán, José, Juan Boubeta-Puig, José Luis Martínez, and Guadalupe Ortiz. 2020. "Integrating Complex Event Processing and Machine Learning: An Intelligent Architecture for Detecting IoT Security Attacks." *Expert Systems with Applications* 149 (July):113251. https://doi.org/10.1016/j.eswa.2020.113251.

Roose, Kevin. 2023. "A.I. Poses 'Risk of Extinction,' Industry Leaders Warn." *The New York Times*, May 30, 2023, sec. Technology. https://www.nytimes.com/2023/05/30/technology/ai-threat-warning.html.

Rosenblatt, Frank. 1962. *Principles of Neurodynamics: Perceptrons and the Theory of Brain Mechanisms*. Spartan Books.

Roser, Max. 2024. "The Brief History of Artificial Intelligence: The World Has Changed Fast — What Might Be Next?" *Our World in Data*, January. https://ourworldindata.org/brief-history-of-ai.

Roth, Gerhard, and Ursula Dicke. 2005. "Evolution of the Brain and Intelligence." *Trends in Cognitive Sciences* 9 (5): 250–57. https://doi.org/10.1016/j.tics.2005.03.005.

Rousseau, Jean-Jacques. 1999. *Discourse on the Origin of Inequality*. Oxford University Press.

Rubin, Charles T. 2003. "Artificial Intelligence and Human Nature." *The New Atlantis* (blog). 2003. https://www.thenewatlantis.com/publications/artificial-intelligence-and-human-nature.

Rumelhart, D.E., G.E. Hinton, and R.J. Williams. 1988. "Learning Internal Representations by Error Propagation." In , 399–421. Elsevier. https://doi.org/10.1016/B978-1-4832-1446-7.50035-2.

Ruse. 1978. "The Dangers of Unrestricted Research: The Case of Recombinant DNA." *RECOMBINANT DNA: SCIENCE, ETHICS AND POLITICS*.

Russell, Stuart. 2019. *Human Compatible: Artificial Intelligence and the Problem of Control*. Penguin Publishing Group.

Russell, Stuart, and Peter Norvig. 2016. "Artificial Intelligence: A Modern Approach, 4th US Ed." 2016. https://aima.cs.berkeley.edu/.

Sailio, Mirko, Outi-Marja Latvala, and Alexander Szanto. 2020. "Cyber Threat Actors for the Factory of the Future." *Applied Sciences* 10 (12): 4334. https://doi.org/10.3390/app10124334.

Salmela, Mikko. 2006. "True Emotions." *The Philosophical Quarterly (1950-)* 56 (224): 382–405.

Salovey, Peter, and John D. Mayer. 2016. "Emotional Intelligence:" *Imagination, Cognition and Personality*, November. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG.

Samuel, Arthur L. 1960. "Programming Computers to Play Games." In *Advances in Computers*, edited by Franz L. Alt, 1:165–92. Elsevier. https://doi.org/10.1016/S0065-2458(08)60608-7.

Santos-Lang, Christopher. 2015. "Moral Ecology Approaches to Machine Ethics." *Intelligent Systems, Control and Automation: Science and Engineering* 74 (January):111–27. https://doi.org/10.1007/978-3-319-08108-3_8.

Sara, Goering. 2014. "Eugenics," July. https://plato.stanford.edu/archives/fall2014/entries/eugenics/.

Scassellati, Brian. 2002. "Theory of Mind for a Humanoid Robot." *Autonomous Robots* 12 (1): 13–24. https://doi.org/10.1023/A:1013298507114.

Schaik, Carel P. van, Karin Isler, and Judith M. Burkart. 2012. "Explaining Brain Size Variation: From Social to Cultural Brain." *Trends in Cognitive Sciences* 16 (5): 277–84. https://doi.org/10.1016/j.tics.2012.04.004.

Schauer, Frederick. 1985. "Slippery Slopes." *Harvard Law Review* 99:361.

Schubert, Erich, Jörg Sander, Martin Ester, Hans Kriegel, and Xiaowei Xu. 2017. "DBSCAN Revisited, Revisited: Why and How You Should (Still) Use DBSCAN." *ACM Transactions on Database Systems* 42 (July):1–21. https://doi.org/10.1145/3068335.

Schumacher, Chet C. Sherwood, Mesa. 2018. "What Makes the Human Brain Special." Scientific American. September 1, 2018. https://www.scientificamerican.com/article/what-makes-the-human-brain-special/.

Science Research Council. 1973. *Artificial Intelligence; a Paper Symposium*. Science Research Council.

Searle, John R. 1980. "Minds, Brains, and Programs." *Behavioral and Brain Sciences* 3 (3): 417–24. https://doi.org/10.1017/S0140525X00005756.

———. 1990. "Is the Brain's Mind a Computer Program?" Scientific American. January 1, 1990. https://www.scientificamerican.com/article/is-the-brains-mind-a-computer-progr/.

———. 1992. "The Rediscovery of the Mind." MIT Press. 1992. https://mitpress.mit.edu/9780262691543/the-rediscovery-of-the-mind/.

———. 1999. *Mind, Language And Society: Philosophy In The Real World*. Basic Books.

———. 2014. Review of *What Your Computer Can't Know*, by Luciano Floridi and Nick Bostrom. *The New York Review of Books*, October 9, 2014. https://www.nybooks.com/articles/2014/10/09/what-your-computer-cant-know/.

Searle, Rick. 2014. "Pinocchio, Fairy Tales, and AI." *Philosophy of Science Portal* (blog). March 7, 2014. http://philosophyofscienceportal.blogspot.com/2014/03/pinocchio-fairy-tales-and-ai.html.

Sejnowski, Terrence J. 2018. *The Deep Learning Revolution*. MIT Press.

Selbst, Andrew D, and Julia Powles. 2017. "Meaningful Information and the Right to Explanation." *International Data Privacy Law* 7 (4): 233–42. https://doi.org/10.1093/idpl/ipx022.

Seneca. 1917. "Moral Letters to Lucilius (Epistulae Morales Ad Lucilium)." Wikisource.

Sfetcu, Nicolae. 2018. *Evoluția and etica eugeniei*. MultiMedia Publishing.
———. 2019a. "Filmul Solaris, regia Andrei Tarkovsky – Aspecte psihologice and filosofice." Telework. 2019. https://www.telework.ro/ro/e-books/filmul-solaris-regia-andrei-tarkovsky-aspecte-psihologice-si-filosofice/.
———. 2019b. "Inteligența." MultiMedia. October 17, 2019. https://www.telework.ro/ro/inteligenta-2/.
———. 2020a. *Emoțiile and inteligența emoțională în organizații*. MultiMedia Publishing.
———. 2020b. *Filosofie - Noțiuni de bază, Volumul 2*. MultiMedia Publishing. https://www.telework.ro/ro/e-books/filosofie-notiuni-de-baza-volumul-2/.
———. 2021. *Introducere în inteligența artificială*. Nicolae Sfetcu. https://www.telework.ro/ro/e-books/introducere-in-inteligenta-artificiala/.
———. 2022. *Aventurile lui Pinocchio - O poveste pentru oameni mari*. MultiMedia Publishing.
———. 2023a. "Provocări în inteligența artificială." IT & C. August 5, 2023. https://www.internetmobile.ro/provocari-in-inteligenta-artificiala/.
———. 2023b. "Valea stranie în robotică." MultiMedia. June 18, 2023. https://www.telework.ro/ro/valea-stranie-in-robotica/.
———. 2024a. "Amenințările persistente avansate în securitatea cibernetică – Războiul cibernetic." MultiMedia. January 8, 2024. https://www.telework.ro/ro/e-books/amenintarile-persistente-avansate-in-securitatea-cibernetica-razboiul-cibernetic/.
———. 2024b. "Inteligența artificială în serviciile de informații, apărare and securitatea națională." MultiMedia. January 1, 2024. https://www.telework.ro/ro/e-books/inteligenta-artificiala-in-serviciile-de-informatii-aparare-si-securitatea-nationala/.
———. 2024c. "Războiul electronic and inteligența artificială." MultiMedia. January 8, 2024. https://www.telework.ro/ro/e-books/razboiul-electronic-si-inteligenta-artificiala/.
Shanahan, Murray. 2006. "A Cognitive Architecture That Combines Internal Simulation with a Global Workspace." *Consciousness and Cognition* 15 (2): 433–49. https://doi.org/10.1016/j.concog.2005.11.005.
Sharma, Radha R. 2008. "Emotional Intelligence from 17th Century to 21st Century: Perspectives and Directions for Future Research." *Vision* 12 (1): 59–66. https://doi.org/10.1177/097226290801200108.
Shelley, Mary Wollstonecraft. 1869. *Frankenstein, or, The Modern Prometheus*. Sever, Francis, & Company.
Sheridan, Thomas B. 2016. "Human–Robot Interaction: Status and Challenges." *Human Factors* 58 (4): 525–32. https://doi.org/10.1177/0018720816644364.
Shermer, Michael. 2017. "Artificial Intelligence Is Not a Threat--Yet." Scientific American. March 1, 2017. https://www.scientificamerican.com/article/artificial-intelligence-is-not-a-threat-mdash-yet/.
Shevlin, Henry, Karina Vold, Matthew Crosby, and Marta Halina. 2019. "The Limits of Machine Intelligence." *EMBO Reports* 20 (10): e49177. https://doi.org/10.15252/embr.201949177.
Shinn, Lora. 2021. "Everything You Need to Know About Insurance for Self-Driving Cars." The Balance. 2021. https://www.thebalancemoney.com/self-driving-cars-and-insurance-what-you-need-to-know-4169822.
Shortliffe, Edward H., Randall Davis, Stanton G. Axline, Bruce G. Buchanan, C. Cordell Green, and Stanley N. Cohen. 1975. "Computer-Based Consultations in Clinical Therapeutics: Explanation and Rule Acquisition Capabilities of the MYCIN System." *Computers and Biomedical Research* 8 (4): 303–20. https://doi.org/10.1016/0010-4809(75)90009-9.

Shostack, Adam. 2014. "Threat Modeling: Designing for Security | Wiley." Wiley.Com. 2014. https://www.wiley.com/en-us/Threat+Modeling%3A+Designing+for+Security-p-9781118809990.

Shotter, John. 1993. *Conversational Realities: Constructing Life through Language*. SAGE Publications.

Silva, Daswin De, and Damminda Alahakoon. 2022. "An Artificial Intelligence Life Cycle: From Conception to Production." *Patterns* 3 (6). https://doi.org/10.1016/j.patter.2022.100489.

Silver, David, Aja Huang, Chris J. Maddison, Arthur Guez, Laurent Sifre, George van den Driessche, Julian Schrittwieser, et al. 2016. "Mastering the Game of Go with Deep Neural Networks and Tree Search." *Nature* 529 (7587): 484–89. https://doi.org/10.1038/nature16961.

Simon, Herbert A., and Allen Newell. 1958. "Heuristic Problem Solving: The Next Advance in Operations Research." *Operations Research* 6 (1): 1–10. https://doi.org/10.1287/opre.6.1.1.

Simon, Herbert Alexander. 1965. *The Shape of Automation for Men and Management*. Harper & Row.

Singer, Bryan, dir. 2000. *X-Men*. Action, Adventure, Sci-Fi. Twentieth Century Fox, Marvel Enterprises, Marvel Entertainment Group.

Singer, Peter. 1974. *Democracy and Disobedience*. Oxford University Press.

Smart, Jjc. 2007. "The Mind/Brain Identity Theory." In *Stanford Encyclopedia of Philosophy*, edited by Ed Zalta.

Smirnova, Lena, Brian S. Caffo, David H. Gracias, Qi Huang, Itzy E. Morales Pantoja, Bohao Tang, Donald J. Zack, et al. 2023. "Organoid Intelligence (OI): The New Frontier in Biocomputing and Intelligence-in-a-Dish." *Frontiers in Science* 1 (February). https://doi.org/10.3389/fsci.2023.1017235.

Solomon, Robert C. 1993. *The Passions: Emotions and the Meaning of Life*. Hackett Publishing.

———. 2007. *True to Our Feelings: What Our Emotions Are Really Telling Us*. True to Our Feelings: What Our Emotions Are Really Telling Us. New York, NY, US: Oxford University Press.

Sorabji, Richard. 2002. *Emotion and Peace of Mind: From Stoic Agitation to Christian Temptation*. Oxford University Press. https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199256600.001.0001/acprof-9780199256600.

Sorgner, Stefan Lorenz. 2010. "Beyond Humanism: Reflections on Trans- and Posthumanism." 2010. https://jetpress.org/v21/sorgner.htm.

Sotala, Kaj, and Roman V. Yampolskiy. 2014. "Responses to Catastrophic AGI Risk: A Survey." *Physica Scripta* 90 (1): 018001. https://doi.org/10.1088/0031-8949/90/1/018001.

Sousa, Ronald de. 1987. *The Rationality of Emotion*. MIT Press.

———. 2004. "Emotions: What I Know, What Id like to Think I Know, and What Id like to Think," 21.

———. 2011. *Emotional Truth*. 1 edition. New York: Oxford University Press.

Sparkes, Brian A. 2013. *The Red and the Black: Studies in Greek Pottery*. London: Routledge. https://doi.org/10.4324/9781315887722.

SPARTA. 2023. "SPARTA Consortium." 2023. https://www.cybersecurityintelligence.com/sparta-consortium-5594.html.

Spearman, C. 1904. "'General Intelligence,' Objectively Determined and Measured." *The American Journal of Psychology* 15 (2): 201–92. https://doi.org/10.2307/1412107.

Spence, Gordon, Lindsay G. Oades, and Peter Caputi. 2004. "Trait Emotional Intelligence and Goal Self-Integration: Important Predictors of Emotional Well-Being?" *Personality and Individual Differences* 37 (3): 449–61. https://doi.org/10.1016/j.paid.2003.09.001.

Staudinger, Ursula M., and Judith Glück. 2011. "Psychological Wisdom Research: Commonalities and Differences in a Growing Field." *Annual Review of Psychology* 62:215–41. https://doi.org/10.1146/annurev.psych.121208.131659.

Steiner, Ph D. Claude, and Paul Perry. 1997. *Achieving Emotional Literacy: A Personal Program to Increase Your Emotional Intelligence*. Abridged edition. New York: Simon & Shuster Sound Ideas.

Sterelny, Kim. 2012. "Language, Gesture, Skill: The Co-Evolutionary Foundations of Language." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2141–51. https://doi.org/10.1098/rstb.2012.0116.

Sternberg, Robert J. 1982. *Handbook of Human Intelligence*. CUP Archive.

———. 1985. *Beyond IQ: A Triarchic Theory of Human Intelligence*. CUP Archive.

Sternberg, Robert J., and James C. Kaufman, eds. 2001. *The Evolution of Intelligence*. New York: Psychology Press. https://doi.org/10.4324/9781410605313.

Stuart-Fox, Martin. 2023. "Major Transitions in Human Evolutionary History." *World Futures* 79 (1): 29–68. https://doi.org/10.1080/02604027.2021.2018646.

Sue-Chan, Christina, and Gary P. Latham. 2004. "The Situational Interview as a Predictor of Academic and Team Performance: A Study of the Mediating Effects of Cognitive Ability and Emotional Intelligence | Request PDF." ResearchGate. 2004. https://www.researchgate.net/publication/228254257_The_Situational_Interview_as_a_Predictor_of_Academic_and_Team_Performance_A_Study_of_the_Mediating_Effects_of_Cognitive_Ability_and_Emotional_Intelligence.

Sun, Ron. 2001. *Duality of the Mind: A Bottom-up Approach Toward Cognition*. New York: Psychology Press. https://doi.org/10.4324/9781410604378.

Swaine, Michael. 2007. "AI: It's OK Again!" 2007. http://philippe.ameline.free.fr/techtreads/070905_AiOkAgain.htm.

Symons, Donald. 1992. "On the Use and Misuse of Darwinism in the Study of Human Behavior." In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by Jerome H Barkow, Leda Cosmides, and John Tooby, 0. Oxford University Press. https://doi.org/10.1093/oso/9780195060232.003.0003.

Taeihagh, Araz. 2021. "Governance of Artificial Intelligence." *Policy and Society* 40 (2): 137–57. https://doi.org/10.1080/14494035.2021.1928377.

Tascarella, Patty. 2006. "Robotics Firms Find Fundraising Struggle, with Venture Capital Shy." Pittsburgh Business Times. 2006. https://www.bizjournals.com/pittsburgh/stories/2006/08/14/focus3.html.

Tegmark, Max. 2018. "Life 3.0: Being Human in the Age of Artificial Intelligence | Mitpressbookstore." July 31, 2018. https://mitpressbookstore.mit.edu/book/9781101970317.

Tesauro, Gerald. 2002. "Programming Backgammon Using Self-Teaching Neural Nets." *Artificial Intelligence* 134 (1): 181–99. https://doi.org/10.1016/S0004-3702(01)00110-2.

Thaler, Stephen L. 1998. "The Emerging Intelligence and Its Critical Look at Us." *Journal of Near-Death Studies* 17 (1): 21–29. https://doi.org/10.1023/A:1022990118714.

Thiher, Allen. 1990. "Postmodernism's Evolution as Seen by Ihab Hassan." Edited by Ihab Hassan. *Contemporary Literature* 31 (2): 236–39. https://doi.org/10.2307/1208589.

Thurstone, L L. 1999. "The Nature of Intelligence." Routledge & CRC Press. 1999. https://www.routledge.com/The-Nature-of-Intelligence/ThurstoneLL/p/book/9781138882553.

Thweatt-Bates, Jeanine. 2012. "Cyborg Selves: A Theological Anthropology of the Posthuman." Routledge & CRC Press. 2012. https://www.routledge.com/Cyborg-Selves-A-Theological-Anthropology-of-the-Posthuman/Thweatt-Bates/p/book/9781138261150.

Tooby, John, and Leda Cosmides. 2005. "Conceptual Foundations of Evolutionary Psychology." In *The Handbook of Evolutionary Psychology*, 5–67. Hoboken, NJ, US: John Wiley & Sons, Inc.

Torres, Phil. 2017. *Morality, Foresight, and Human Flourishing: An Introduction to Existential Risks*. Pitchstone Publishing.

Townley, Dafydd. 2023. "Intelligence Agencies Have Used AI since the Cold War – but Now Face New Security Challenges." University of Portsmouth. May 4, 2023. https://www.port.ac.uk/news-events-and-blogs/blogs/security-and-risk/intelligence-agencies-have-used-ai-since-the-cold-war-but-now-face-new-security-challenges.

Traiger, Saul. 2000. "Making the Right Identification in the Turing Test1." *Minds and Machines* 10 (4): 561–72. https://doi.org/10.1023/A:1011254505902.

Turing, A. M. 1950. "Computing Machinery and Intelligence." *Mind* LIX (236): 433–60. https://doi.org/10.1093/mind/LIX.236.433.

Tzu, Lao. 1992. *Lao Tzu: Te-Tao Ching - A New Translation Based on the Recently Discovered Ma-Wang-Tui Texts*. Translated by Robert G. Henricks. Reprint edition. New York: Ballantine Books.

Umbrello, Steven. 2018. "Posthumanism: A Fickle Philosophy?" *Con Texte* 2 (1): 28–32. https://doi.org/10.28984/ct.v2i1.279.

Umbrello, Steven, and Jessica Lombard. 2018. "Silence of the Idols: Appropriating the Myth of Sisyphus for Posthumanist Discourses." *Postmodern Openings* 9 (4): 98–121. https://doi.org/10.18662/po/47.

UN. 2017. "UN Artificial Intelligence Summit Aims to Tackle Poverty, Humanity's 'grand Challenges' | UN News." June 7, 2017. https://news.un.org/en/story/2017/06/558962.

UNESCO. 2021. "The Race against Time for Smarter Development | 2021 Science Report." 2021. https://www.unesco.org/reports/science/2021/en.

Université de Montréal. 2017. "Déclaration de Montréal IA responsable." Déclaration de Montréal IA responsable. 2017. https://declarationmontreal-iaresponsable.com/.

Urbina, Fabio, Filippa Lentzos, Cédric Invernizzi, and Sean Ekins. 2022. "Dual Use of Artificial-Intelligence-Powered Drug Discovery." *Nature Machine Intelligence* 4 (3): 189–91. https://doi.org/10.1038/s42256-022-00465-9.

US NLM. 2015. "Is Intelligence Determined by Genetics?: MedlinePlus Genetics." 2015. https://medlineplus.gov/genetics/understanding/traits/intelligence/.

Varela, Francisco J., Eleanor Rosch, and Evan Thompson. 1992. *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press.

Vasiliev, Vadim, Dmitry Volkov, and Robert Howell. 2018. "A Russian Chinese Room Story Antedating Searle'..." 2018. https://www.hardproblem.ru/en/posts/Events/a-russian-chinese-room-story-antedating-searle-s-1980-discussion/.

Vaswani, Ashish, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N Gomez, Ł ukasz Kaiser, and Illia Polosukhin. 2017. "Attention Is All You Need." In *Advances in Neural Information Processing Systems*. Vol. 30. Curran Associates, Inc. https://papers.nips.cc/paper_files/paper/2017/hash/3f5ee243547dee91fbd053c1c4a845aa-Abstract.html.

Vatican. 2002. "Communion and Stewardship: Human Persons Created in the Image of God." 2002. https://www.vatican.va/roman_curia/congregations/cfaith/cti_documents/rc_con_cfaith_doc_20040723_communion-stewardship_en.html.

Vincent, James. 2016. "Satya Nadella's Rules for AI Are More Boring (and Relevant) than Asimov's Three Laws." The Verge. June 29, 2016. https://www.theverge.com/2016/6/29/12057516/satya-nadella-ai-robot-laws.

———. 2017. "Elon Musk and AI Leaders Call for a Ban on Killer Robots." The Verge. August 21, 2017. https://www.theverge.com/2017/8/21/16177828/killer-robots-ban-elon-musk-un-petition.

Vinge, Vernor. 1993. "The Coming Technological Singularity." 1993. https://edoras.sdsu.edu/~vinge/misc/singularity.html.

Vukov, Joseph. 2017. "Personhood and Natural Kinds: Why Cognitive Status Need Not Affect Moral Status." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 42 (3): 261–77. https://doi.org/10.1093/jmp/jhx005.

Wahla, Arfan, Lan Chen, Yali Wang, Rong Chen, and Fan Wu. 2019. "Automatic Wireless Signal Classification in Multimedia Internet of Things: An Adaptive Boosting Enabled Approach." *IEEE Access* PP (November):1–1. https://doi.org/10.1109/ACCESS.2019.2950989.

Wakefield, Jane. 2015. "Intelligent Machines: Do We Really Need to Fear AI?" *BBC News*, September 27, 2015, sec. Technology. https://www.bbc.com/news/technology-32334568.

Waldrop, M. Mitchell. 1987. "A Question of Responsibility." *AI Magazine* 8 (1): 28–28. https://doi.org/10.1609/aimag.v8i1.572.

Walker, Ronald E., and Jeanne M. Foley. 1973. "Social Intelligence: Its History and Measurement." *Psychological Reports* 33 (3): 839–64. https://doi.org/10.2466/pr0.1973.33.3.839.

Wallace, Jeff. 2016. "Modern." In *The Cambridge Companion to Literature and the Posthuman*, edited by Bruce Clarke and Manuela Rossini, 41–53. Cambridge Companions to Literature. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781316091227.007.

Walsh, Roger. 2015. "What Is Wisdom? Cross-Cultural and Cross-Disciplinary Syntheses." *Review of General Psychology* 19 (3): 278–93. https://doi.org/10.1037/gpr0000045.

Wang, Pei, and B. Goertzel. 2007. "Introduction: Aspects of Artificial General Intelligence." In . https://www.semanticscholar.org/paper/Introduction%3A-Aspects-of-Artificial-General-Wang-Goertzel/e4eae745b158133e7d6fb8457f3a3a36164ca1ea.

Wang, Xiali, and Xiang Lu. 2020. "A Host-Based Anomaly Detection Framework Using XGBoost and LSTM for IoT Devices." *Wireless Communications and Mobile Computing* 2020 (October):1–13. https://doi.org/10.1155/2020/8838571.

Wasserman, John D. 2019. "Deconstructing CHC." *Applied Measurement in Education* 32 (3): 249–68. https://doi.org/10.1080/08957347.2019.1619563.

Watkins, Christopher. 1989. "Learning From Delayed Rewards," January.

Wechsler, David. 1939. *The Measurement of Adult Intelligence*. Williams & Wilkins.

Weinbaum, Cortney, and John N.T. Shanahan. 2018. "Intelligence in a Data-Driven Age." National Defense University Press. 2018. https://ndupress.ndu.edu/Media/News/News-Article-View/Article/1566262/intelligence-in-a-data-driven-age/https%3A%2F%2Fndupress.ndu.edu%2FMedia%2FNews%2FNews-Article-View%2FArticle%2F1566262%2Fintelligence-in-a-data-driven-age%2F.

Weiss, Gerhard. 2013. "Multiagent Systems." MIT Press. 2013. https://mitpress.mit.edu/9780262533874/multiagent-systems/.

Weizenbaum, Joseph. 1966. "ELIZA—a Computer Program for the Study of Natural Language Communication between Man and Machine." *Communications of the ACM* 9 (1): 36–45. https://doi.org/10.1145/365153.365168.

———. 1976. *Computer Power and Human Reason: From Judgment to Calculation*. W. H. Freeman.

Whitehead, Alfred North, and Bertrand Russell. 1927. *Principia Mathematica*. Cambridge University Press.

Whiten, Andrew, and David Erdal. 2012. "The Human Socio-Cognitive Niche and Its Evolutionary Origins." *Philosophical Transactions of the Royal Society B: Biological Sciences* 367 (1599): 2119–29. https://doi.org/10.1098/rstb.2012.0114.

Widrow, B., and M.A. Lehr. 1990. "30 Years of Adaptive Neural Networks: Perceptron, Madaline, and Backpropagation." *Proceedings of the IEEE* 78 (9): 1415–42. https://doi.org/10.1109/5.58323.

Wiener, Norbert. 1960. "Some Moral and Technical Consequences of Automation." *Science* 131 (3410): 1355–58. https://doi.org/10.1126/science.131.3410.1355.

Wiggers, Kyle. 2022. "DeepMind's New AI System Can Perform over 600 Tasks." *TechCrunch* (blog). May 13, 2022. https://techcrunch.com/2022/05/13/deepminds-new-ai-can-perform-over-600-tasks-from-playing-games-to-controlling-robots/.

Wikipedia. 2024. "Tay (Chatbot)." In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=Tay_(chatbot)&oldid=1218521017.

Williams, George Christopher. 2018. "Adaptation and Natural Selection | Princeton University Press." October 30, 2018. https://press.princeton.edu/books/paperback/9780691182865/adaptation-and-natural-selection.

Williams, R. W., and K. Herrup. 1988. "The Control of Neuron Number." *Annual Review of Neuroscience* 11 (Volume 11, 1988): 423–53. https://doi.org/10.1146/annurev.ne.11.030188.002231.

Wilson, Margaret. 2002. "Six Views of Embodied Cognition." *Psychonomic Bulletin & Review* 9 (4): 625–36. https://doi.org/10.3758/BF03196322.

Winfield, Alan. 2011. "Five Roboethical Principles – for Humans." New Scientist. 2011. https://www.newscientist.com/article/mg21028111-100-five-roboethical-principles-for-humans/.

Winfield, Alan F., Katina Michael, Jeremy Pitt, and Vanessa Evers. 2019. "Machine Ethics: The Design and Governance of Ethical AI and Autonomous Systems [Scanning the Issue]." *Proceedings of the IEEE* 107 (3): 509–17. https://doi.org/10.1109/JPROC.2019.2900622.

Winston, Patrick Henry. 1984. *Artificial Intelligence*. Addison-Wesley.

Wissner-Gross, Alex. 2014. "Alex Wissner-Gross: A New Equation for Intelligence | TED Talk." 2014. https://www.ted.com/talks/alex_wissner_gross_a_new_equation_for_intelligence.

Wolfe, Cary. 2009. "What Is Posthumanism?" Book. University of Minnesota Press. 2009. https://www.upress.umn.edu/book-division/books/what-is-posthumanism.

Wynn, Thomas, Karenleigh A Overmann, and Lambros Malafouris. 2021. "4E Cognition in the Lower Palaeolithic." *Adaptive Behavior* 29 (2): 99–106. https://doi.org/10.1177/1059712320967184.

Xiang, Chloe. 2023. "Microsoft Now Claims GPT-4 Shows 'Sparks' of General Intelligence." *Vice* (blog). March 24, 2023. https://www.vice.com/en/article/g5ypex/microsoft-now-claims-gpt-4-shows-sparks-of-general-intelligence.

Young, George. 2012. "The Russian Cosmists: The Esoteric Futurism of Nikolai Fedorov and His Followers," July, 1–288. https://doi.org/10.1093/acprof:oso/9780199892945.001.0001.

Yudkowsky, Eliezer. 1996. "Staring into the Singularity 1.2.5." 1996. https://web.archive.org/web/20081021051739/http://yudkowsky.net/obsolete/singularity.html.

Yukdowsky, Eliezer. 2008. *Artificial Intelligence as a Positive and Negative Factor in Global Risk*. *Global Catastrophic Risks*. https://ui.adsabs.harvard.edu/abs/2008gcr..book..303Y.

Zeghloul, Saïd, med amine Laribi, and Jean-Pierre Gazeau. 2016. *Robotics and Mechatronics: Proceedings of the 4th IFToMM International Symposium on Robotics and Mechatronics*. Vol. 37. https://doi.org/10.1007/978-3-319-22368-1.

Zelazo, Philip David, Morris Moscovitch, and Evan Thompson, eds. 2007. *The Cambridge Handbook of Consciousness*. Cambridge Handbooks in Psychology. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511816789.

Zhang, Chongzhen, Yanli Chen, Yang Meng, Fangming Ruan, Runze Chen, Yidan Li, and Yaru Yang. 2021. "A Novel Framework Design of Network Intrusion Detection Based on Machine Learning Techniques." Edited by Savio Sciancalepore. *Security and Communication Networks* 2021 (January):1–15. https://doi.org/10.1155/2021/6610675.