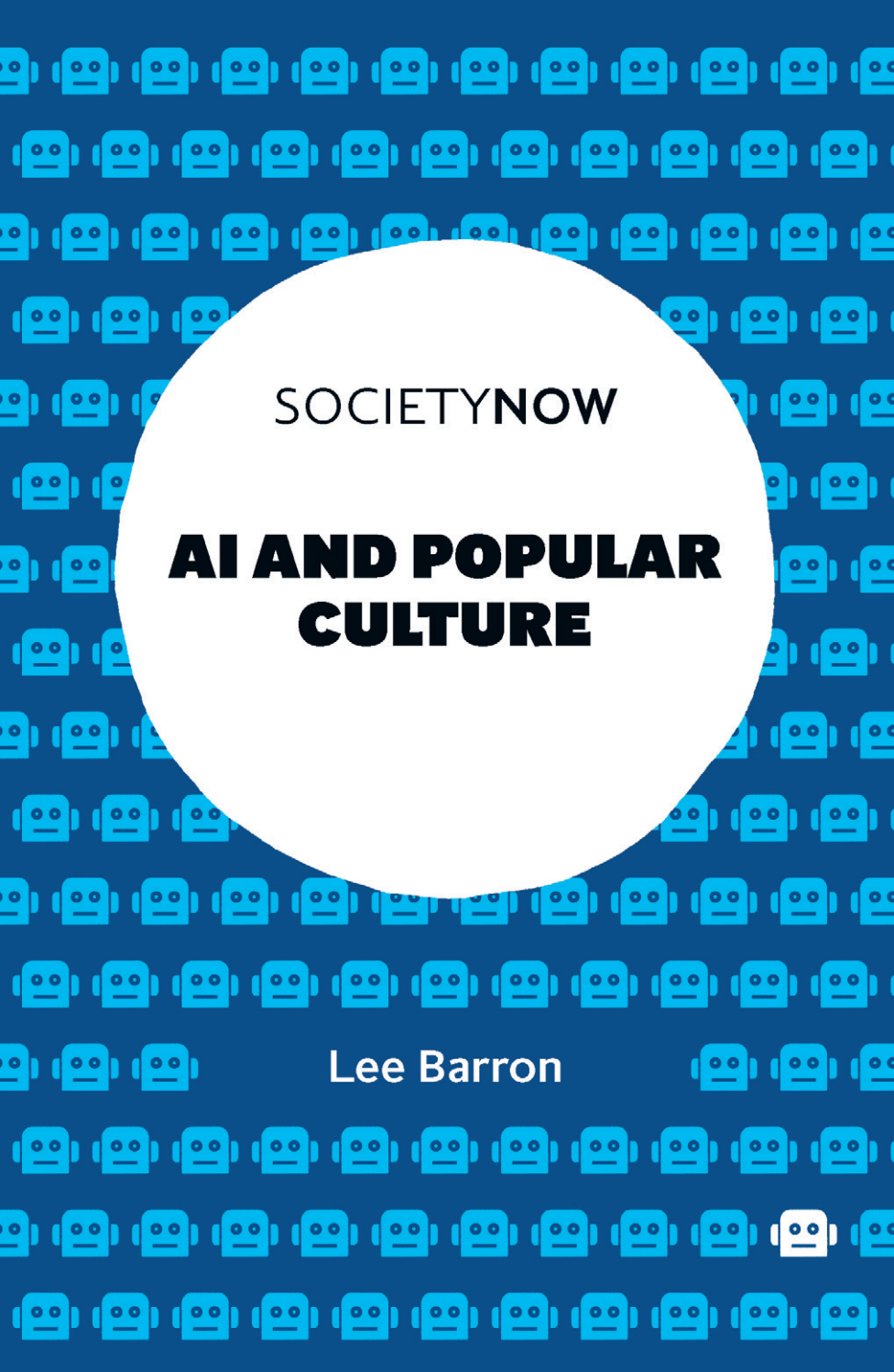




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**AI AND POPULAR  
CULTURE**

Lee Barron

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# AI AND POPULAR CULTURE

BY

**LEE BARRON**

*Northumbria University, UK*



United Kingdom – North America – Japan – India  
Malaysia – China

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# INTRODUCTION: THE AGE OF AI TECHNICS

Writing in 1961, Marvin Minsky stated that “we are on the threshold of an era that will be strongly influenced, and quite possibly dominated, by intelligent problem-solving machines” (1961, p. 8). However, while artificial intelligence (AI) has become an endemic part of popular culture, it is significant to note that, as Kaplan and Michael Haenlein (2020) point out, Minsky, one of the first wave of AI pioneers, was directly influenced by the science fiction stories of Isaac Asimov, especially those focused on the Three Laws of Robotics and published in the 1940s. Indeed, Minsky would also join the production team of Stanley Kubrick’s seminal science fiction film *2001: A Space Odyssey* as a consultant to design and realize the HAL-9000 AI character (Mukunth, 2018). In this sense, the impact of popular culture was an important influence for the originators of the discipline of artificial intelligence from its early stages, and, as Meredith Broussard stresses, for many, popular culture effectively *defines* AI:

*To most people, the phrase artificial intelligence suggests something cinematic – maybe commander Data, the lifelike cyborg from Star Trek: The Next Generation; perhaps Hal 9000 from 2001: A Space Odyssey; or Samantha, the AI system from the movie*



*Her, or Jarvis, the AI majordomo that helps Iron Man in the comics and movies. Regardless, here's what's important to remember: those are imaginary. . . many people want AI to be real. (2019, 31)*

Broussard stresses that of course AI is real, but it does not take the form of sentient superintelligent computer systems or self-aware cyborgs, but consists of algorithms that, through processes such as deep/machine learning, engage in predictive analytics and are manifest in the Internet-of-Things (IoT) processes and devices that are used in an everyday context. In this sense, the development of AI represents a potent new expression of Lewis Mumford's classic concept of technics, the processes by which human societies have been "profoundly modified by the development of the machine" (1934/2010, p. 3). In the wake of the industrial revolutions, Mumford argues that mechanization came to dominate human existence, to the point that (writing from the context of the early twentieth century):

*Machines have developed out of a complex of non-organic agents for converting energy, for performing work for enlarging the mechanical or sensory capacities of the human body, or for reducing to a measurable order and regularity the processes of life. . . The automaton is the last step in a process that began with the use of one part or another of the human body as a tool. (1934/2010, pp. 9–10)*

Developments in automation and robotics are, for many thinkers, creating (or will create) the automaton that will profoundly transform the future of work, but it is not merely the body that contemporary technics is transforming but also

the quest to automate *minds* as tools, or at least approximations of neural thinking processes that engage in algorithmic decision-making in lieu of humans. For Kaplan and Haenlein, AI has three distinctive stages, from narrow AI (its current iteration) to the potential development into general AI and then beyond to superintelligence, each of which can be, respectively, classified into “analytical, human-inspired, and humanized AI” (2020, p. 39). At a macrosocial level, Kaplan and Haenlein stress the ways in which AI will be increasingly integrated (both to positive and also potentially negative effect) with areas such as politics and the engagement of military technology (autonomous armed drones); technological decision-making (AI-driven autonomous car control, for example), law and regulation, employment and automation; education and retraining in a world in which “human workers will need to accept that machines will, in one part or another, make up a section of their colleagues in the future” (2020, p. 47). However, from a micro-social perspective, the sociologist Anthony Elliott states:

*AI is not so much about the future as the here-and-now. Our lives are already saturated with AI – evidenced in the rise of chatbots, Google Maps, Uber, Amazon recommendations, email spam filters, robo-readers, and AI-powered personal assistants such as Siri, Alex and Echo. The AI revolution is thus well underway, and is unfolding in complex and uneven ways across the globe. (2019, p. xx)*

Therefore, AI is transforming the economic, productive, and information management of many parts of the world and is almost invisibly integrated into many people’s daily lives, influencing/suggesting the kinds of TV series that Netflix subscribers watch, which generates data that enable the company “to identify which shows are the most relevant ones

for them” (Borek & Prill, 2020, p. 4). Philosophically, the integration of AI into human life as a key modern technological tool suggests the influence of the phenomenological thinker, Martin Heidegger, whose work on technology stresses that it is a centrally human activity and a means by which humans reveal the nature of their world. However, the nature, influence, use, and potential future trajectory of AI is perhaps better captured by the philosophical movement called postphenomenology.

Centered on the work of Don Ihde, the approach adapts phenomenology to reflect key historical changes in twenty-first-century societies in order to find “a way to probe and analyze the role of technologies in social, personal, and cultural lives” (2009, p. 23). As Robert Rosenberger and Peter-Paul Verbeek elaborate, postphenomenological inquires:

*[Investigate] technology in terms of the relations between human beings and technological artifacts, focusing on the various ways in which technologies help to shape relations between human beings and the world. They do not approach technologies as merely functional and instrumental objects, but as mediators of human experiences and practices.*  
(2015, p. 9)

From this perspective, postphenomenology is a mode of philosophy that arises from technology and integrates technology into its inquiry of the relations between humans and the world to critically examine how, via technologies such as media and mobile digital devices, technology is “woven throughout our existence” (Van Den Eede et al., 2017, p. xviii). A key concept drawn from the work of Ihde is that of alterity, and alterity relations, which refers to the ways that interactions with technologies are analogous to how humans interact with other humans, a factor intensified with

technologies designed to imitate the form of person-to-person interaction. This is a factor intensified with the advance of AI because, as Rosenberger and Verbeek argue:

*It could be predicted that as computing advances, and as our abilities to create sophisticated computer programs that simulate human interactive style increase, we will see more and more devices designed with an alterity-style interface. It is already the case that this form of relation can be increasingly seen in automated interactive customer service phone calls, GPS devices that read aloud driving directions, and voice interactive personal assistant smartphone applications. (2015, p. 18)*

Furthermore, advances in personal AI assistants have enhanced the alterity relations many have with AI. Likewise, Frances Bottenberg draws on the concept of alterity to consider future developments of AI, especially in the creation of humanoid robots that move to higher levels of intelligence and how humans will progressively be “fooled” by AIs, even those that do not possess any form of real sentience. However, the nature of such human relations is a theme that has a long and varied history in culture, as Bottenberg stresses:

*Consorting with Intelligent humanoid machines is a persistent and fertile technofantasy of the last modern and postmodern ages. Humanoid robot variations are numerous and startlingly diverse: our imaginings range from the loyal helpmeet (Robbie of Asimov’s I, Robot, C-3PO of Star Wars), to the terrifying psychopathic killer (the Terminator, the Cylons of Battlestar Galactica), and back to the sentient lifeform struggling to “become more*

*human” (Data from Star Trek: The Next Generation). (2015, p. 175)*

This quote illustrates two important points, firstly, the value of again reflecting on exemplars drawn from popular culture to capture the differing representations of robotics and AI, and secondly, that there is such diversity. This second point reflects a further important aspect of postphenomenology in that, as Friedrich et al. (2022) argue, the approach stresses the concept of multistability, the understanding that social actors can use technologies for multiple purposes and can be perceived to have different meanings for different people. As Mark Coeckelbergh argues, the value of postphenomenology for the understanding of AI is that it sees technology as “part of our existence rather than something external that threatens that existence” (2020, p. 45). However, Coeckelbergh does stress that postphenomenology can be too optimistic “to the real dangers and ethical and societal consequences of AI” (2020, p. 46).

*AI and Popular Culture* considers the concept of alterity of AI looking at a range of cultural examples that stress the promises of AI, but also suggest the less optimistic impacts and potential future trajectories of AI. The subject of AI is one that has, does, and will continue to provoke different meanings for different social actors as the issue of alterity progressively increases: as AI becomes a more endemic component of social and individual lives. AI is transforming the world, from macro processes such as machine learning making massive strides in areas such as medical science and more precise stock trading, to helping people tailor recommendations of what new series boxset to binge on in their leisure time. However, issues such as increasing levels of surveillance and data mining, progressive algorithmic management, machine learning biases, increasing automation across a

range of jobs and professions, weapons systems that may soon not require human intervention to make lethal decisions and the often-unseen environmental impact of AI are also paramount concerns. From a more futuristic perspective, some confidently predict that future superintelligent post-Singularity AI will solve all of humanity's problems, from disease, military conflict, economic inequalities, and environmental catastrophes (if not ushering in an entirely new age in which sentient machines will function as the benign stewards of a healing Earth). Alternatively, other commentators paint dystopic, if not apocalyptic visions of the future in which sentient machines, like Victor Frankenstein's monster, transcend their creators and seek to subjugate them, whether dooming them to directionless lives of Universal Basic Income (UBI)-sustaining unemployment in a postwork world, or even driving humans to complete extinction. All these issues and debates are potent factors in the contemporary development and evaluation of AI, but as alluded to already, they are themes that find expression in a myriad of popular cultural representations, from ancient myths and poems to the latest film and streamed TV series. Therefore, dreams of thinking machines predate modern media, but as AI developed from the 1950s, popular culture has provided a constant, creative, and often provocative mirror to this technological development and to the futurological projections that pervade it.

Given the centrality of AI, and the myriad promises (and potential threats) that it promises, *AI and Popular Culture* examines the development and contemporary significance of AI from its historical developments and imaginings to the conceptual beginnings of the technology, such as the work of Alan Turing, the development of expert systems, the rise of symbolic AI, and the breakthroughs in neural networks and deep learning. The book examines the nature and impact of current "narrow" AI (ANI) and critically discusses

applications of these technologies and explores the various debates surrounding the goal of achieving Artificial General Intelligence (AGI), the AI that, as Melanie Mitchell states, “we see in movies, that can do most everything we humans can do” (2019, p. 41). Returning to Heidegger, a point about technology is that humans always seek to master it, and the “will to mastery becomes all the more urgent the more technology threatens to slip from human control” (1977, p. 12), an idea that dominates fears about the potential threats of “superintelligent” artificial general intelligence, but which also concerns others who question the extent to which algorithmic monitoring and management are increasingly pervasive in modern societies.

However, to creatively reconnoitre this territory and (often controversial) debates and developments, the book, as the title indicates, investigates these questions through a range of differing representations of AI in popular culture. As such, the narrative will, in each chapter, explore differing ways in which AI is represented throughout the discussion of key examples in fiction, film, television, and digital practices, platforms, and technologies (from AI and deepfakes, to voice-activated assistants and virtual influencers). Hence, in the context of cultural expressions that explore how, even if depictions of AI are speculative and futuristic in some instances (focusing exclusively on the potentials of AGI), they nevertheless flag and illustrate contemporary technological developments and shed light on prominent debates on current and potential future trajectories of AI. *AI and Popular Culture*, therefore, utilizes a diverse range of cultural texts to synthesize historical, cultural, and contemporary debates and developments in the field of AI to present a detailed and accessible analysis of significant social issues relating to the history, current iterations, and potential future trajectories of AI technology. So, if as William Clapton and Laura J. Shepard stress, AI “has