



Generative Artificial Intelligence

What Everybody Needs to Know

Jerry Kaplan

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Jerry Kaplan, PhD, is widely known as an Artificial Intelligence expert, serial entrepreneur, technical innovator, educator, bestselling author, and futurist. He invented several ground-breaking technologies including handheld tablet computers, online auctions, and electronic musical instruments. Currently, he is an Adjunct Lecturer at Stanford University where he teaches social and economic impact of Artificial Intelligence in Stanford's top-ranked Computer Science Department.

The immense value of this book is the introduction, because the author Jerry Kaplan “puts his cards on the table”.

First he clarifies terminology and significance of the various components of *Generative Artificial Intelligence* (GAI) as a new subchapter of machine learning. If we talk about Artificial Intelligence (AI) nowadays, we mean GAI. The kernel of the tremendous progress of GAI is the *Large Language Model* (LLM). GAI talks with the user in a plain language and can solve a broad range of complex problems e.g. they can compose a meal by looking at the contents of the refrigerator. The author suggests that with the improvement of this technology we might have discovered the “holy grail” of AI, the *Artificial General Intelligence* (AGI), i.e. machines that match or exceed human intelligence.

While today's GAI's are limited to their fixed training content, future versions certainly might eliminate this limitation and allow them to constantly learn and incorporate new information like humans do. While currently GAI's experiences are limited to human generated contents and human tutored training, this bottleneck might be eliminated by connecting real time sources like cameras and microphones giving GAI's the own “eyes” and “ears” with all its consequences resulting in tremendous advances in human art, science, technology and human knowledge.

The breakthrough technology is that GAI is the first tool which can use other tools!

The author thinks, although it is not clear yet whether this technological revolution will be a net positive for society that *there will be net gain for society*. The worry of some thinkers that GAI may even pose an existential risk to humanity is vastly ‘overblown’, because the systems are constructed by human designers and there is always an ‘Off’ switch. However globally accepted regulatory rules are needed and are urgently needed.

In the detailed chapters Jerry Kaplan provides ‘all you need to know’ about the history of AI, generative AI and their likely impact on our lives. He describes the probable influence of GAI on our working conditions and available jobs. Risk and dangers for our future by the possibility to use GAI for the creation of disinformation and propaganda is discussed, the legal status/liability of AI actions and possible/necessary regulations with respect to freedom of speech is thoroughly presented. The author closes his detailed discussions addressing philosophical issues and implications for humanity, like whether creativity, human mind, consciousness, feeling or free will can be exercised by learning machines.

As a practical GAI application Jerry Kaplan asked GPT-4 to neatly summarize each chapter of his detailed discussions and added the result in his book in front of the actual chapter.

In the Outroduction the author describes his own past experiences with AI and makes a couple of projections and prognostications about the future applications of GAI using astonishing examples like traffic management in San Francisco bay area and large crowds of people coordination and management to ensure undisturbed 'flows'.

While not explicitly mentioned I think with the information provided in his prognostications GAI will be of tremendous help also in the 'space business' like satellite control, mission planning and space debris control and containment.

This book is highly recommended as a fingerpost into the future and affects everybody. Indeed, Jerry Kaplan summarizes in this book 'what *You* need to know about the future'.

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