*Information Research* - Vol. 30 No. 3 (2025)

# The rise of generative artificial intelligence. Impact on societies, economies and enterprises.

Review of Kshetri, N. (2024). The rise of generative artificial intelligence. Impact on societies, economies and enterprises. Cheltenham, UK: Edward Elgar Publishing. xiii, 322 p. ISBN: 978-1-0353-4673-8

DOI: https://doi.org/10.47989/ir30351403

This is a timely book, with generative AI having appeared on the scene with the announcement of ChatGPT, in November 2022, and the rush of alternatives a few months later.

Although AI systems have been in use for decades, they have almost always been specialised, proprietary systems in, for example, financial services, health care, and e-commerce. Generative AI changed the context by being made available to the public, with a focus on information discovery and manipulation. Its success can be gauged from the fact that in October 2023 ChatGPT had approximately 1.7 billion visits; a number that continues to rise.

The book deals with the development of generative AI, and some of its main application areas, in ten chapters, divided into five parts. Part one introduces key concepts and developments, and the current state of the industry. ChatGPT has been, 'the most rapidly adopted consumer product of all time', and the adoption of generative AI systems generally must have exceeded that measure. The first chapter defines key terms such as, 'algorithm', 'machine learning', 'generative AI', and 'large language models', and goes on to describe the timeline of developments.

Chapter two sets out the current state of the industry and the market for generative AI. As the author notes, the take-up of generative AI is facilitated by the number of systems being developed and by the regular improvements in performance, as well as by the volume of investment. The economic impact is discussed, noting that Goldman Sachs Research finds the use of generative AI could lead to a global GDP increase of 7%, equivalent to $1.7 trillion.

Part two discusses the impact of generative AI on three sectors: academia, financial services, and e-commerce. The author is right in suggesting that the emergence of generative AI has turned academia into 'a contested territory'; contested not only within institutions (and among them for competitive advantage), but also between academia and commercial interests. There are now many opportunities to learn various aspects of computer science and information systems development outside of academia, providing qualifications recognized by business and industry, and these are likely to gather force as a result of generative AI.

Artificial intelligence systems have been used for decades by financial services, from the time of 'expert systems'. Such systems are used for trading purposes and customer support. Generative AI systems add the capability of using the vast customer database information to match products to customers, among other applications. Throughout the book there are 'boxes' which give small case studies or additional information. In this section they provide interesting case studies of the application of generative AI in banking, such as JP Morgan's IndexGPT, a chatbot for investment advice.

As one may imagine, in the e-commerce sector generative AI is being used to facilitate online interaction with customers, providing buying advice, and analysing purchases for more effective marketing. A box describes Zalando's use of ChatGPT to devise a shopping assistant to help customers make a purchase decision: that kind of use is likely to spread widely in the industry. The customer's reactions to the advice offered, and the options available, provide further information that can be used in subsequent interactions.

Part three discusses two functional areas of any business: human resource management, and marketing and sales. In the former, generative AI is being used for recruitment, selection and training of staff, and one can readily see the advantages here. It is also being used for 'performance management', that is, collecting information on how the employee is performing in their role, through the analysis of 'feedback from various sources', which all seems like Big Brother is collecting information about everything the employee does. This may be effective from a management perspective but can hardly be seen as encouraging from the employees' point of view.

When the book was under development and going through the production process, the launch of the Chinese generative AI, DeepSeek, was some time ahead. However, in part four, the author devotes a chapter to developments in generative AI in China. Some of the comments are now outdated. For example, it is said that, 'Chinese technology companies fall significantly behind their US counterparts in terms of GAI capabilities'. This was before the launch of DeepSeek, which led to a fall in the stock values of the US companies, and which demonstrated the ability of the Chinese to produce more efficient generative AI systems than the US. The story is told in a recent article in *The Conversation* (Bloom, 2025), which draws attention to the fact that the Chinese government has adopted an open-source strategy for AI development, rather than the free-market, competitive system of the US. In this case, socialism (Chinese style) seems to better capitalism.

Chapter nine, on the impact in the 'Global South' draws attention to the fact that existing generative AIs are based largely on 'Global North' information resources and, therefore, may have biases that affect their usefulness in the South. The Southern countries also have, in some cases, quite severe resource constraints. Add to this the current Chinese policy of directing development aid to the South, while Trump withdraws it (Roulette, et al., 2025), and it seems likely that the Global South will come to rely upon DeepSeek and its successors, rather than ChatGPT, Claude, or Gemini.

The final chapters, in part five, deal with governance, cybersecurity and privacy, and strategies for the future. On governance, the author (rightly I believe) concludes that the disruptive nature of generative AI means that business and the economy cannot properly benefit without regulation and control. On security and privacy, one key issue is the ability of criminals to use generative AI to develop scams and other modes of cybercrime, another area to be explored by governance and regulation. Finally, the author notes the release of generative AI systems is democratising access to AI systems: corporations and governments are going to need to determine how best to encourage, and control, that democratisation.

This is a timely book, but, given the pace of development in the field, likely to age rather quickly in terms of specific systems and details. Nevertheless, the sections on how AI is used in companies of various kind and the advantages and disadvantages, are likely to remain valid, whatever the changes that occur in generative AI in the future.

From a book production point of view, it is a little odd: it has the appearance of being constructed from a series of papers by the author. A feeling strengthened by having the references (in number sequence) at the end of each chapter. This results in the references taking up eighty-eight pages of text. In most chapters, because of the numbering system, there are multiple 'op. cit.' types of references, further inflating the space occupied. In one chapter, for example, I counted more than fifty such references, all of which could have been avoided if an author listing had been adopted, and even more space could have been saved if the chapter references had been merged into a final bibliography. Locating specific references that one might refer to would also been easier.

The feeling that existing papers are the base of some of the chapters is reinforced by finding that chapter seven, on marketing, owes much to a paper by the author and others on the same subject. The paper is cited and referenced in the chapter, but the work of the co-authors is not otherwise acknowledged. I would have expected a preface or foreword explaining the origin of some of the material in the book, with due acknowledgement of co-authors, but there is no such preface. Perhaps academic life in the USA has become so cut-throat that the traditional courtesies are being abandoned.

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**April, 2025**

## References

Bloom, P. (2025, February 12). DeepSeek: how China's embrace of open-source AI caused a geopolitical earthquake. *The Conversation*. https://theconversation.com/deepseek-how-chinas-embrace-of-open-source-ai-caused-a-geopolitical-earthquake-249563

Roulette, J., Baptista, E., El Safety, S., & Brock, J. (2025, February 11). *China builds space alliances in Africa as Trump cuts foreign aid.* Reuters. https://www.reuters.com/investigations/china-builds-space-alliances-africa-trump-cuts-foreign-aid-2025-02-11/