Future Concepts of Artificial Intelligence

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ABSTRACT

This study aims to introduce the new concepts about artificial intelligence that have emerged lately and developed continuously. Therefore, the internet and scientific databases were analysed to generate a concept map about them. The review and analysis of the related research has revealed 10 concepts: AI-addiction, AI-culture, AI-governance, AI-safety, AI-laziness, AI-information pollution, AI-literacy, AI-pedagogy, AI-ethics, and AI-humanisation. Based on the findings, they have been defined and exemplified. Their interconnectedness to each other and the discussions about which concepts may become more prominent and high-profile in the future have also been presented. Finally, the philosophers of the new age will most likely debate about whether artificial intelligence could have a soul. It is believed that the current study will be a reference to clarify the emerging concepts about the use of artificial intelligence in the future.

INTRODUCTION

The release of ChatGPT, a type of Generative Artificial Intelligence (GenAI), into open access in November 2022 brought a radical change in people's daily lives. This change was so effective that GenAI assistants similar to ChatGPT were made available by all major software corporations ranging from Google to Microsoft (Kleinman, 2024; Pichai & Hassabis, 2023). In addition, artificial intelligence (AI) has started to be used in all areas of life, from education to health, from arts to social life. Another natural effect of this intensive use of AI has been the use of some AI-related concepts, which are sometimes only found in academia, even sometimes losing their original meanings. On some occasions, GenAI has led to the creation of new concepts as a result of its intensive use. Especially with the media's influence, such concepts have been widely accepted by the masses. For instance, the Cambridge Dictionary has picked the word “hallucinate” in 2023 as the word of the year in the sense of AI's production of misinformation, ripping it out of its original meanings (Cambridge, 2024).

With the continuous development and expansion of GenAI, a serious need has emerged to explain these new concepts. It is also necessary to document how these concepts are generally perceived across

DOI: 10.4018/406016

different disciplines. In this way, systematically mapping these emerging concepts will benefit everyone who wishes to understand and use these concepts for academic and practical purposes. At this point, however, it should not be forgotten that as AI technologies continue to develop in different fields, the content of these emerging concepts will most likely change over time. For example, while the concept of AI-ethics initially found its place in science fiction (Asimov, 1950), it gradually evolved into a concept related to AI design (Dignum, 2018), and recently, it has been perceived as a concept directly present in every area of human life. Similarly, other concepts like AI-culture and art, which were previously absent from literature, have also emerged, and the development of meanings for these concepts is still ongoing. Consequently, this conceptual explanation merely presents the current state of emerging AI-related terminology and acknowledges that these concepts may evolve in the future and that the terminology may be redefined. Furthermore, it is considered necessary to provide a brief evaluation of potential new AI concepts that may appear in the future.

To address the aforementioned necessity for conceptual clarification, this study aims to explain the emerging new AI-related concepts. For this purpose, the internet and scientific databases were analyzed and explored in order to make an attempt to generate a concept map about the new concepts of AI. The ten concepts related to AI that emerged from these analyses are AI-addiction, AI-culture and art, AI-governance, AI-safety, AI-laziness, AI-information pollution, AI-literacy, AI-pedagogy, AI-ethics, and AI-humanization (see Figure 1). These concepts have been explored in detail from the past to the present, and their contemporary meanings and relations to other concepts have also been revealed. To emphasize their interrelatedness in a better way, they were further categorized into the following concepts: Concepts about Personal Use of AI, Concepts about Education and AI, Concepts about Safety of AI and General Concepts of AI based on their respective semantic relations. Lastly, a brief discussion on the future of AI, and which concepts may become even more significant for the future, is presented to enlighten the future work areas of AI.