Exploring Totalitarian Elements of Artificial Intelligence in Higher Education With Hannah Arendt

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ABSTRACT

From the perspective of political philosophy, this article examines the extent to which artificial intelligence (AI) applications in higher education contain totalitarian elements. Drawing on the theoretical considerations of Hannah Arendt, the author first identifies the key characteristics of total domination and then relates these to two AI applications in the field of higher education: adaptive learning systems and AI-based text generators. On this basis, the article elaborates on the similarities between concrete AI technologies and totalitarian structures. Finally, the author formulates questions that can be used to examine if concrete AI applications exhibit totalitarian traits. The aim of this theoretical contribution is to provide a perspective that will help to identify new dangers of AI or to see already known dangers in a new light, leading to a deeper and broader discourse on the consequences of AI.

KEYWORDS

Adaptive Systems, AI-Based Text Generators, AI Use in Higher Education, Hannah Arendt, Totalitarian Elements

INTRODUCTION

AI-based systems are revolutionizing the relationship between humans and machines in a wide range of social areas (Grace et al., 2018). Particularly in the field of higher education, a major debate about the use of AI in teaching-learning settings has intensified, especially with the release of ChatGPT 3 in November 2022. Thus, ChatGPT has suddenly led to every university teacher being confronted with AI in their courses and having to think about how teaching and exams can look like with the new AI technologies (Lo, 2023; Gimpel et al., 2023). In this context, the following question is central: To what extent can and should intelligent algorithms help to shape learning and teaching and take on tasks in the tertiary education sector? In addition to this question, there is also a need to discuss more general dangers of the use of AI in higher education, such as how AI is fundamentally changing learning in students' lives, and what risks this entails (Popenici & Kerr, 2017).

Reflections on general attitudes toward new technologies are philosophical and try to clarify under which circumstances and conditions AI should be used in different social contexts (e.g., in education). They aim to find ethical guidelines for the use of AI in social fields. In addition to the ethical debate,

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Coeckelbergh (2018, p. 5) argues that the use of AI can also be considered from the perspective of philosophies and political theories, "which offer theoretical resources that support more awareness and understanding … of our thinking about technology, the good life, and society." In this article I take this consideration as its starting point by placing two recent AI applications from the field of higher education in the context of totalitarian rule. In doing so, Hannah Arendt's (1951; 2017) reflections on totalitarianism serve as the theoretical framework because her work is characterized by its openness and does not represent a self-contained, unified system of thought whereby individual theoretical considerations can also be related to other contexts (Gordon & Becevel, 2021). In this respect, Arendt's reflections have received a great deal of attention, particularly in the field of higher education (e.g., Nixon, 2020; Jahn, 2017), which is why they also prove suitable for this study. Through this approach, a new perspective can be taken that helps identify new dangers of AI or to see already known dangers in a new light, leading to a broader and deeper discourse on the consequences of AI. The decision to examine the extent to which certain AI applications in higher education exhibit totalitarian features stems from the fact that the fundamental criticisms of AI applications often address issues similar to those found in totalitarian structures. For example, AI cannot justify the decisions it makes and is not transparent; AI also can lead to a reduction in human connectedness (Lockey et al., 2021) and is already seen as a threat to democracy (Coeckelbergh, 2022).

The article is divided into four sections. In the first section, I describe Hannah Arendt's reflections on totalitarianism (Arendt, 1951; 2017) and elaborate on certain characteristics of this form of rule. In the second section I introduce the topic of AI and outline current AI applications in higher education. In the third section, I define adaptive systems and AI-based text generators as concrete examples of using AI in teaching-learning settings and link them to Arendt's theoretical assumptions. The analysis focuses on the extent to which certain key features of AI applications fulfill the characteristics of totalitarian rule. In conclusion, in the fourth section, I discuss the results, formulate initial recommendations, and point out limitations. The discussion aims to highlight the fundamental dangers of AI technologies and encourage critical reflection on AI in higher education.

HANNAH ARENDT'S REFLECTIONS ON TOTALITARIANISM

Hannah Arendt was a political thinker (Arendt, & Gaus, 1964; Weißpflug, 2019) whose reflections can be applied to different contexts and are relevant to different disciplines. In the current AI debate, Arendt is also often used as a theoretical reference point when the impact of new technologies on politics and society are examined (e.g., Gordon & Becevel, 2021; Leins, 2019). Particularly in the context of AI being described as a threat to a democratic society (Coeckelbergh, 2022), Arendt's reflections on totalitarianism help to provide a different perspective on the new technology.

Nazism and Stalinism are the starting point for Arendt's engagement with the reflection of totalitarianism. To this end, Arendt adopts different perspectives. For example, in *The Origins of Totalitarianism* (Arendt, 1951; 2017), *The Human Condition* (Arendt, 1998), and *Between Past and Future* (Arendt, 1961), the subject is examined from philosophical, political, and historical views and shows an enormous complexity (Canovan, 1992, p. 17).

Arendt understood totalitarianism as the absolute rule of a system in which political action is no longer possible and the world has become meaningless (Tassin, 2011). Arendt distinguished totalitarianism from forms of state such as dictatorship or tyranny. She argued that it cannot be captured or understood in terms of traditional political theories because totalitarianism represents "a break with all our traditions" and that totalitarian actions "have clearly exploded our categories of political thought and our standards for moral judgment" (Arendt, 1954, pp. 309–310).

One of the central features of totalitarian systems is the use of terror. Arendt described terror as a way of life in which every human being is absolutely powerless (Tassin, 2011): Terror destroys human interaction on all levels (political, social, and private) and erases all spontaneous action between people (Arendt, 1951; 2017; pp. 435, 496, 506). The lack of interaction simultaneously alienates individuals

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