A sociotechnical history of an AI video chatbot: Mapping AI chatbot innovation trajectory for information policy design

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ABSTRACT

This study traces the patent citation network of U.S. Patent 11,107,465 *Natural Conversation Storytelling System* (Gustman et al, 2021) to map the innovation trajectory of AI Chatbots. This patented AI video chatbot enables the reanimation or digital resurrection of humans in video form. As GLAMs continue to experiment with new technologies such as historical figure chatbots to increase engagement through gamification and empathy, a critical examination of technologies that are designed to appear human-like is warranted as they often skirt credibility, accuracy, and likely insert bias. Furthermore, the rise of generative AI tools and the propensity for producing hallucinations (Christensen et al, 2024) increases ethical issues for the implications on humans and truth (Ranalli, 2022; Stahl and Eke, 2024).

Patent citation network analysis is frequently conducted as a competitive strategy for mapping the trajectory of technological development and patented inventions (Érdi et al, 2013; Jain et al, 2020). Drawing from this method, innovation trajectory routes or pathways will be traced through the patent citations to identify the most prominent or critical patents in the AI video chatbot innovation trajectory and analyze which features of technical innovation are retained across its pathway. These methods are frequently utilized to understand changes, patterns, and development in innovation to predict economically viable futures and can be utilized to predict the needs for information policy (Frohmann, 1995) by understanding the implications asymmetrical power on society.

ALISE RESEARCH TAXONOMY TOPICS

information policy; information ethics; social media; social justice.

AUTHOR KEYWORDS

ai chatbot; patent citation network; digital resurrection; ai afterlife; innovation trajectory.

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