ONLINE MEDIA ARCHEOLOGY AS AI CRITIQUE: WIKIPEDIA'S LINKS AND EDITS AS SPATIAL AND TEMPORAL FIELDS

Natalia Stanusch
University of Amsterdam

Richard Rogers
University of Amsterdam

Natalia Sánchez-Querubín
University of Amsterdam

With the omnipresent hype, risk, and utility attributed to artificial intelligence (AI), there's a need for methods and ways of thinking that embrace AI in all its complexities. Impulses to make sense of artificial intelligence, or what AI 'is', range from focusing on environmental and epistemological infrastructures that shape AI systems today (Crawford, 2024) or taking on a media materialist unearthing of the medium by focusing on its concrete instance – such as the chatbot Eliza (Ciston et al., forthcoming), to investigating and retelling the histories of people and companies behind AI, such as OpenAI (Hao, 2025). This paper proposes a form of AI sensemaking that differs from linear, progress-focused corporate histories of technology, "politicoeconomic" analysis of power concentration (Bode and Goodlad, 2023), or traditional literature reviews. Instead, we approach AI as operating across multiple temporalities and discourses by turning to media archeology on Wikipedia.

Through this approach, AI emerges as a sociotechnical assemblage of ideas and objects, shaped by varied modalities of traction and rupture. We propose that media archeology can aid in the sensemaking of AI because it favors spaciousness and complexities, and Wikipedia can serve that purpose given its quest for universalization. AI has a history in this sense, here also following Wikipedia's logic, evolving horizontally (as the topic bifurcates) and vertically (as it changes across time). We ask: How can we

trace the continuing coming into being of AI? What can be learned about AI by following media archaeological logic combined with Wikipedia's technological logic? And, ultimately, what forms of critique does this perspective enable?

Using Wikipedia as media archeology instrument

We take inspiration from media archeology and borrow its presumption to unearth understandings of media technologies through their multiple dimensions and ruptures. Media archeology uncovers and establishes links amongst fragments and stories, favoring nonlinearity and complexity. In a similar spirit, the starting point for the analysis is the 'Artificial intelligence' article on Wikipedia and by operationalizing the notion of rupture we set to unearth particular stories and the multiplicities of AI through the content that is linked from and bifurcates from this article. Our approach is thus embedded between two lenses - materialist and discourse-driven - of media archeological analysis; we engage with the material technicity of the Wikipedia-as-a medium, as well as perform a story-driven unearthing of multiple discourses around AI.

Wikipedia constitutes a new canonical attempt at universalization, which also has points of view (Lovink and Tkacz, 2011). It seeks to *ontologize*. This universalization and ontologizing are *always becoming* through the quality of emergent, horizontal consensus. Wikipedia's *technicity* - its linked article ecology together with its edit histories - then makes it particularly suitable to perform a media archeology. This means approaching Wikipedia as a source of data about not only content but the connections and ruptures. By 'ruptures' we mean changes by deletion or substitution in article associations.

Methods for Operationalizing Media Archeology on Wikipedia

Our investigation begins with the first snapshot of the 'Artificial intelligence' article in which Wikipedia introduced 'See also' (a link leading to other pages) as a distinct affordance. We operationalize the 'See also' section into a link ecology with categorizations and prominence over time, thus allowing us to map and explore the spatial field within which the artificial intelligence article has resided across its temporal dimension. This temporality shows how the depth (or Wikipedia's 'sediments') can be related to the notion of time.

Methodologically, it involves both close engagement with Wikipedia's machinic infrastructure (in the sense of Ernst) and qualitative content analysis. Hence, this investigation is interested in both "metonymic and material fragments or traces of the past through time to the 'here and now'" (Sobchak, 2011, p. 324), bringing together the media archeological interest in the material and narrative (Parikka, 2011). This endeavor focuses on micro-analysis of digital processes underlying Wikipedia's infrastructure as a medium rooted in "time-critical" (Ernst, 2021) operations. We focus on the template layer that Wikipedia engages to render a page, its Application Programming Interfaces (APIs), and data retrieval accessibility and "addressability"

(Parikka, 2011) through API requests.

We employed the scraper tool Seealsology, which helped us represent a 'See also' articles link ecology of the 'artificial intelligence' article. We then expanded the data collection by formulating Wikipedia API requests to collect historical changes to the section, resulting in 193 articles. We employed ollama software via a Python script to locally use a Large Language Model (LLM) called 'deepscaler' as well as an LLM-based chatbot 'ChatGPT 4.0,' accessed via the interface. Both the model and the chatbot were prompted to assign each article to a broader thematic category. The outputs were compared and refined by a coder, resulting in 12 categories.

In order to trace - or "rub" (Rogers & Marres, 2002) - extant and abandoned AI genealogies, we excavated AI through the lens of Wikipedia and its history of attention, where ruptures have attention spans and spikes. An "AI period" in our framework is a timeframe in the life of Wikipedia's AI article marked by two ruptures, where ruptures emerge as a major break defined by falls or rises in one or more categories, yielding 8 distinct periods.

Wikipedia's periodization of AI via its 'See also' article embedding

We present our findings in terms of periods, each capturing the 'ideation company' that AI keeps on Wikipedia at a given time. By looking at what 'feeds' or accompanies the AI node across time and tracing the shifts across conglomerates of articles that make up the 12 categories, we deduce four main takeaways and critiques from the conducted periodization (Figure 1). First, we notice the instability of the AI industry. Second, we observe a decline in the prominence of science fiction-related articles over time. Finally, we note that the rise of articles under the umbrella of human enhancements can be seen in the most recent periods, as well as the rising prominence of articles related to threat recognition and accountability of AI.
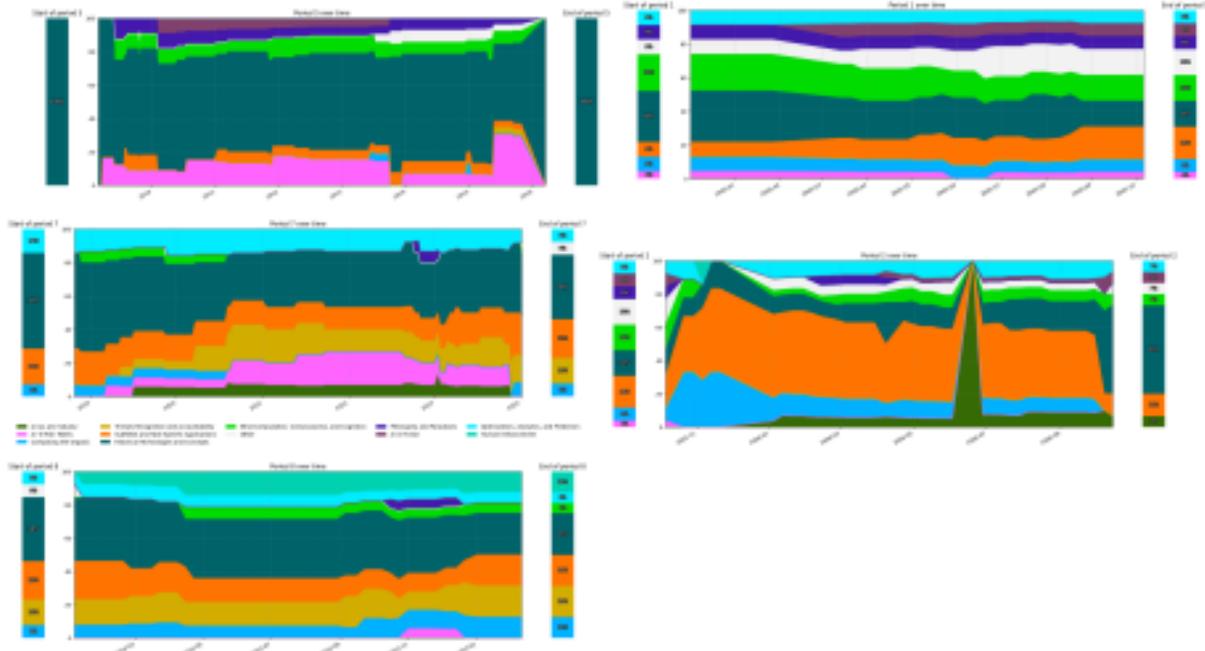
Figure 1. The overview of selected ruptures and emergent periods in the history of changes to the 'See also' section of the 'Artificial Intelligence' article on Wikipedia.

Rather than claiming to tell the ultimate 'Truth' story of AI or attempting to 'correct' definitions and terms, this intervention maps a specific knowledge space on Wikipedia, including its controversies and gaps. It thus considers Wikipedia as not only an "object" of media archeology but also its "subject" (Ernst, 2011, p. 241). Since AI exists as an issue that is being made and unmade, Wikipedia allows us to see how the knowledge space about AI exists as a technology that is continuously moving and transforming.

We see productivity in modes of critique that embrace complexities, thus considering AI in terms of discourses and competing nets of ideas, instead of simplifying or detemporalizing it. Media archeology, and Wikipedia as a site of exploration, as we demonstrate, can aid in such sensemaking. In our investigation, Wikipedia emerges as a (substantive) AI sense-making space as well as media archeology instrument.

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