

From Prediction Markets To Capability Markets: Epistemic Extractivism In Generative AI

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Extended Abstract

Some Generative AI (GenAI) platforms are introducing advertising into their conversational interfaces, others have committed not to. In this paper, we use this divergence as a starting point, and argue that it obscures a deeper convergence: all major GenAI platform operators instrument the interfaces through which users interact with GenAI models, and all are positioned to develop and monetise AI capability products from the records this instrumentation produces.

Drawing on analysis of the observability infrastructure that standardises and structures the recording of GenAI interactions, alongside industry documentation, research, and reporting, we surface interaction telemetry data as a distinct data object in the political economy of GenAI. Interaction telemetry data is a record of the cognitive processes of users and AI models, materialised through the GenAI interface; observability infrastructure enables the accumulation and commodification of this record. In this context, we conceptualise GenAI as an example of Industrialised Cognition (Smithies 2026), drawing on the understanding of cognition developed by Hayles (2017).

We identify two forms of extraction co-constituted with interaction telemetry data. Behavioural extraction, continuous with surveillance capitalism, captures user states for the prediction and shaping of user behaviour (Zuboff 2020). Cognitive extraction, in contrast, captures teleological labour – the work users undertake to cajole GenAI platforms into doing what they want – and refines this into AI capability products. *Teleological labour* is a subset of digital labour (Fuchs and Seignani 2013), distinguished from other forms of labour that contribute to GenAI production on the basis that it is constitutive of the user-platform relation, rather than an employee-employer relation.

Through engagement with scholars of extractivism, particularly Grosfoguel (2015, 2019), whose theory of epistemic extractivism describes the appropriation of knowledge from marginalised communities, we argue that cognitive extraction is an example of epistemic extractivism. Cognitive extraction positions human reasoning as a labour source to be extracted, and labour markets as a stock to be depleted (Quijano 2000). In this regard, the paper also relies on

data colonialism literature to situate epistemic extractivism in GenAI within broader extractive practices across the AI supply chain (Chagnon et al. 2022; Magalhães and Couldry 2025; Tubaro 2025).

We conclude by outlining research directions for the study of epistemic extractivism in GenAI: methodological approaches adequate to interaction telemetry’s sociotechnical and infrastructural entanglements; empirical study of how observability standards are operationalised commercially, and of developing AI capability markets; and political analysis of how cognitive extraction’s distributional consequences fall across existing inequalities of race, gender, and position in global labour markets.

Extended version —

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