

Insights from Adoption of EMR

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After two days of insightful research questions, rigorous evaluation of these questions, and thought-provoking discussion, it was a comment by David Chan at Stanford that stuck with me. He asked whether many of the questions we were asking about AI in Healthcare were largely answered by the body of work evaluating how the diffusion of Electronic Health Records (the most recent large-scale digital push in healthcare) impacted different aspects of healthcare delivery.

The insights learned from the study of EHR diffusion and their impact on healthcare will almost certainly apply to the diffusion of AI in healthcare. Like EHR, effective use by clinicians, alignment of incentives, and re-working processes to incorporate insights from AI will be vital to realizing value. New scholarship considering these dynamics in the context of AI will certainly add value to the discourse and should be generally publishable. However, my conclusion from the day is that path-breaking scholarships will need to think deeply about the unique aspects of AI and how these aspects will impact healthcare. A few examples come to mind of the kinds of questions future work could explore.

- Health economists have extensively studied competitive dynamics in healthcare. This body of work highlights, among other things, how regional healthcare monopolies contribute to reduced quality and efficiency (Gaynor 2007). How will AI impact these dynamics in ways that EHR did not? Will AI's potential to substitute for human capital in healthcare reduce barriers to entry and enable leaner entrants to disrupt healthcare at scale? Or, will data-rich incumbents leverage the AI revolution to further entrench themselves in these markets?
- EHR were largely focused on digitization of healthcare and provided, by and large, deterministic insights (e.g., identifying drug interactions for patients). How will the probabilistic nature of insights from AI impact use and adoption by clinicians. Will the encroachment of AI into domains that were core to physicians' value add (e.g., diagnosis) impact these dynamics? Considering the potential of clinicians to reject certain types of AI insights, will be it optimal at times to reduce exposure to or scope of AI insights?
- Will integration of AI into healthcare shift patient demand and in which directions? Under which conditions will lower cost, more accessible AI-powered services prosper and when will the human touch present in traditional healthcare prevail. The answer to these questions is not clear ex ante. In the context of mental health (a context where privacy and human interaction are key), AI powered technology platforms for providing mental health services have been highly successful.¹

Overall, the outlook for research at the intersection of AI and healthcare is bright and there are several exciting areas for researchers to explore. I encourage myself and other researchers to be thoughtful about their pursuits in this space and look forward to research that helps healthcare integrate AI in ways that maximize welfare across the board.

Gaynor, M. (2007). Competition and quality in health care markets. *Foundations and Trends® in Microeconomics*, 2(6), 441-508.

¹ <https://www.brookings.edu/techstream/the-wellness-industrys-risky-embrace-of-ai-driven-mental-health-care/>