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Title: Harness the Power of Information to Enhance Health

Abstract: The research projects conducted at the Health and Information Lab (HAI) concern the optimal use of information, communication, and decision technologies in patient care delivery and management; and in patient information seeking, self-tracking, and self-management. Our work covers a wide spectrum of informatics applications, from clinical diagnostic systems to patient-facing apps; and uses a rich set of tools, from cognitive engineering and human-computer interaction to natural language processing and machine learning. Our recent projects have focused on developing computerized clinical decision-support systems to address the opioid crisis in the U.S.; using speech-based technologies to reduce clinician burnout; applying machine-learning algorithms to identify frequent users of ED; understanding the mechanisms underlying patients' self-tracking behavior such as in fertility care; and conducting ethnographical studies to study the information barriers that patients face when navigating the complex healthcare system.