

Design and tech expertise influence patient HIT engagement



Researchers at <u>Penn State University</u> say that people who are confident about machine performance and their own abilities to engage with technology are likely to transfer these attitudes to use of digital healthcare services and providers.

The research team presented results of their study 'Digital Doctors and Robot Receptionists: User Attributes that Predict Acceptance of Automation in Healthcare Facilities' at the ACM Conference on Human Factors in Computing Systems in Glasgow, Scotland.

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"Our research advances knowledge by identifying two specific individual differences that seem to play a role in increasing adoption of automation in healthcare facilities—belief in **machine heuristic** (or positive stereotypes about machines being more accurate, precise, objective, etc. than humans) and degree of **power usage** (expertise, experience, efficacy and motivation to use technology)," researcher S. Shyam Sundar told HealthManagement.org.

The impact of design of digital healthcare applications was also a keystone of the research.

"The key to implementing automation in healthcare facilities may lie in **designing the interface in such a way that it appeals to expert users** who have a high belief in machine abilities," said the research team, which also included Andrew Gambino and Jinyoung Kim. "Instead of expending design resources on <u>anthropomorphising healthcare bots</u>, they can be directed towards features such as chat functionality, and advanced features. As suggested by our results, increasing the number of power users and the general belief that machines are trustworthy may increase the adoption of futuristic, automated services."

Healthcare digitalisation is already well underway and gaining momentum as Al continues to impact both clinical and managerial solutions to the challenges such as a shrinking workforce and ageing population.

But opportunities to engage with digital health be it via mHealth or with a hospital reception interface doesn't automatically lead to patient engagement.

Research participants, recruited from online workforce, <u>Amazon Mechanical Turk</u>, showed that the higher the belief in the machine heuristic, the **more enthusiastic the attitude towards HIT** application and future usage.

"The upshot of our research is that designers of automation in this domain should <u>focus on increasing user trust in machines</u> performing healthcare and increasing users' technological efficacy rather than focusing on creating cute, anthropomorphic machines that will wow consumers." Sundar explained.

Source: HealthManagement.org, Penn State News

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