Explaining artificial intelligence for users with mental health challenges: Identifying barriers and implementing solutions

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Abstract

AI-enabled mental health applications offer complementary mental health care for users facing mental health challenges. However, data privacy and the opacity of algorithmic processes inhibit its adoption. In four experimental studies, we show that detailed mechanistic explanations can enhance understanding and alleviate data concerns in MHAs (Study 1), but their effectiveness is reduced for users with mental health challenges like anxiety, due to reduced processing efficiency (Studies 2 and 3). We demonstrate that presenting detailed mechanistic explanations in an infographic rather than in texts and visuals can enhance MHA adoption intentions among highly anxious users (Study 4). Our research reveals that delivering algorithmic data collection explanations in an alternative format is essential for potential MHA users and offers managerial insights on the need for tailored communication strategies to accommodate the cognitive needs of vulnerable users in the intersection of mental health care and technology.