Redefining AI Interaction: Hot Cognition as Predictor for Acceptance of Medical Artificial Intelligence

Laura-Sophie Grunert
Johannes Gutenberg- Universität Mainz
Frank Huber
Johannes Gutenberg University Mainz

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Abstract

Algorithms increasingly outperform humans in many ways. This also applies to the healthcare sector. Nevertheless, consumers still prefer human recommendations over medical AI. Empathic, compassionate contact is particularly important in the doctor-patient relationship and contributes to better treatment outcomes and patient satisfaction. Hot cognition, which refers to the ability to draw conclusions about desires, beliefs and intentions of another person, is used in this context. Based on this, mental states and behavior can be predicted, which is a decisive factor in social interaction. Recently, technical advances have been made and machines are increasingly capable of this internal simulation. Given this, our research examines the extent to which hot cognition can contribute to the appraisal of AI in a medical context by conceptually linking an AI-specific technology acceptance model with the Theory of Mind. Based on the findings, patient-centered technologies can be designed.

Keywords: acceptance of medical AI, patient-centered technology, Theory of Mind

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