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Antecedents of Artificial Intelligence in Healthcare Services for improving patient care

Abstract

Statement of the Problem:

Artificial intelligence (AI), with its seemingly limitless potential, promises to revolutionize healthcare industry. However, the ground reality and its adoption are very different than the discourse. Thus, a research on the acceptance and adoption intention of AI by health professionals is imperative. This paper analyzes the factors that are critical drivers for the adoption of AI and its impact on healthcare service delivery, specifically on patient care.

Methodology & Theoretical Orientation:

The ethnographic study employed social construct theory to systematically review literature between 2018 and 2022 through the lens of critical realism to investigate the factors that affect the use of Artificial Intelligence for patient care in hospitals.

Findings:

The study investigates the relationship of data governance, workforce competency, patient voice, predictive medicine, security and privacy on AI adoption. AI adoption will be limited if the trust for or the AI solutions, algorithms is not developed. The paper examines how trust mediates the effect of patient voices, privacy and security, predictive medicine and workforce training on AI adoption. Three sub-factors for each of the dependent variables are further identified and a conceptual framework has been developed to assess the impact on patient experience.

Conclusion and Significance:

In terms of contributions, this work provides a novel framework integrating different factors while discussing several barriers and benefits of AI-based health. In addition, five insightful propositions emerged as a result of the main findings. Thus, this study's originality is regarding the new framework and the propositions considering adoption of AI. By understanding what factors shape adoption concerns, organizations can better manage reactions and concerns regarding the use of new technologies and guidance can be provided to practitioners better adopt. Further quantitative study can be done to establish the relationship between the factors and establish the validity of the model.

Biography

Debopam Raha is a research student pursuing Doctor of Business Administration at SP Jain School of Global Management, India. Currently he works as an Associate Partner in KPMG. Debopam has more than 20 years of Industry experience across US, India and Europe in large management consulting firms and have been involved in leading digital health strategy and implementation projects globally for various state, national governments and private sector. He was a critical member in establishing the Digital Health Hub Center of Excellence set up by KPMG. His expertise includes Large Scale Technology Transformation, Business Systems Integration, Enterprise Architecture, Business and Solution Architecting.

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