

Deeper Look: Artificial Intelligence (AI) acceptance in radiology and Frameworks

Rehan Babar

University of Calgary, Canada



Abstract

Ubiquitous computational power. Faster Data processing. Rapid progress of analytic techniques. We are amid major changes all around us and they are happening at an exponential pace. Artificial Intelligence (AI) – which aims to mimic human cognitive functions – is bringing a paradigm shift to the field of radiology. In the last decade, AI techniques known as deep learning have delivered rapidly improving performance in image recognition, caption generation, and speech recognition. Further implementation of AI in radiology will significantly improve the quality, value, and depth of radiology's contribution to patient care and revolutionize radiologists' workflows. However, recent reports of health information technology (IT) show that the acceptance between purchased technologies and clinical work systems is critical in determining intended end users to accept or reject the technology, to use or to misuse it, or to incorporate it into their clinical workflows or work around it. This paper assesses technology implementation frameworks in the context of AI in radiology and employs a widely accepted and validated technology acceptance framework - the Technology Acceptance Model (TAM). The model is built on the premise that when an end-user is introduced to a technology, there are constructs and relationships that influence when and how a user will interact with the technology. In addition, the findings can further inform and provide guidance for policymakers, AI application developers, and business management on the educational needs of radiologists, research and development, and the role of radiologists in moving forward with AI in radiology

management competitions in the world (Harvard Case Competition, Inter-collegiate Business Case Competition) and

has earned a top-3 spot in 5 global competitions. He is among the first 7 students from the Haskayne School of Business to be selected for the prestigious and rigorous Honours research program and has received multiple awards for his research pertaining to AI in the field of radiology

Speaker Publications:

1. Participated under Young Research Forum Category, AI & Big data 2020, Webinar, August 17-18, 2020

[3rd International Conference on Artificial Intelligence, Machine Learning and Big Data](#); Webinar- August 17-18, 2020.

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Biography:

Rehan Babar, is currently completing his Bachelor of Commerce Honours at University of Calgary (UofC) with a specialization in Accounting/Finance and Artificial Intelligence (AI). He has represented UofC in some of the most prestigious