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Mini Track on AI and Robotics in Healthcare: Progresses, Opportunities and Challenges
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Artificial Intelligence (AI) is bringing dramatic changes in every industry by propelling innovation and improving productivity. One of the key sectors where AI and Robotics' impact has already become substantial and promising more disruptive changes is Healthcare. Both AI and Robotics are steadily becoming more sophisticated in gaining human-level capabilities in many areas of Healthcare at lower costs. These new abilities have a ripple effect that is reverberating across the entire healthcare system. For example, AI has turned into an indispensable tool in the process of drug discovery. Recently, AI systems have made tremendous progress in finding a way to determine the 3D shapes of proteins. The solution to the protein folding problem helps to better understand the building blocks of cells and significantly expedite the drug discovery process.

Another example is AI's applications in clinical diagnostics. In many areas, such as lung and breast cancer detection, AI programs perform better than their human counterparts. From process automation to robotic surgery and early disease detection to novel treatment methods, the healthcare sector's future holds enormous potential. However, there also exist many challenges.

Numerous questions remain unresolved. Who is responsible when an AI makes an error causing injuries or death? How to eliminate biases from systems that may have a detrimental effect on a disadvantaged group. How to handle privacy concerns when more and more data are becoming accessible to AI systems? There also exist human capital related challenges.

AI became a critical tool for the healthcare system only recently. Thanks to AI's exponential growth, demand for data scientists and AI experts are also increasing. The lack of talented data scientists is slowing down the deployment of AI in crucial areas. On the other hand, the aggressive implementation of AI in the healthcare sector will eventually displace many health workers from their jobs. This problem is not that severe yet but might become acute if governments and industries don't take immediate action.

This mini track explores changes that AI and Robotics are bringing to healthcare, how AI and Robotics are impacting social and personal life, and what the future looks like for this critical for the humanity area. Suggested topics include but are not limited to:

- Philosophical and ethical issues related to AI and robotics in the healthcare
- Future opportunities and problems in the use of AI and Robotics in Healthcare
- AI in Biotechnology
- Human-machine interaction (HMI) and its impact on healthcare
- AI-based digital transformation strategic approaches in healthcare

Dr Mitt Nowshade Kabir is a serial entrepreneur, technology evangelist, business accelerator and an investor. He holds M. Sc. in Computer Science, MBA, PhD in Information Technology, and a DBA in management. His current interests are Innovation, Artificial Intelligence, Machine Learning, Consciousness, Entrepreneurship, and Strategic Management. He is the CEO of Trouvus.com, an AI consulting and development company. Dr Kabir penned numerous scholarly papers and generic articles. He also published a book on Knowledge-based Social Entrepreneurship. He worked as an advisor to various levels of government. Presently, he is writing a book on "AI and the future of humanity".

Submission details
In the first instance a 300-word abstract is required, to be received by **28 April 2021.** Submissions must be made using the online submission form: https://www.academic-conferences.org/conferences/eciair/eciair-abstract-submission/

If you have any questions about this track, please email the mini track chair: nowshade@gmail.com

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