Artificial Intelligence (AI) in Healthcare

Presenters: *Chris Ng-Fletcher, Harshini Reddy*
Panelists: *Michele D'Elia, Xiyuan (Siuwin) Wang*

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Presenters

Christopher Ng-Fletcher, MBA

- Co-chair of *Emerging Health Leaders* (Toronto), co-chair Events & Committee of the HIMSS Ontario Chapter, Emerging Leader Forum
- Performance Analyst at *Canada Health Infoway*, focusing on the Pan-Canadian Interoperability Roadmap, specifically data model development and maturity model development for the roadmaps building blocks
- Bachelors of Science in Biology from George Washington University and a Masters of Business Administration (MBA) from the University of Windsor
- Interested in interoperability, AI, SDOH, and the future of primary care
- Avid lover of tennis

Harshini Reddy, MHA

- National Director of Internal Affairs for *Emerging Health Leaders (EHL)* - Special Projects and EHL Community Engagement, HIMSS Events & Committee member
- Masters of Health Administration (MHA) from Columbia University and a Bachelors of Science in Biology from Jackson State University
- Has 6+ years of experience in business strategy, market growth, process optimization, data analytics, revenue cycle, and clinical administration of a rapidly evolving healthcare environment in the United States
- Looking for the next step in her professional journey and growing as a leader by creating innovative healthcare solutions
- Former professional WTA ranked tennis player and NCAA Division I athlete

Agenda

- Objectives

- Introduction to Artificial Intelligence (AI)

- Artificial Intelligence Use Cases

- Artificial Intelligence in Healthcare

- Key Considerations with Artificial Intelligence

- Benefits and Opportunities

- AI Implementation Challenges

- Panel Discussion

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Presentation Objectives

- Gain an understanding of Artificial Intelligence

- Identify uses cases for Artificial Intelligence in Healthcare

- Key learnings for your Artificial Intelligence journey

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Introduction to Artificial Intelligence (AI)

It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable.

- John McCarthy

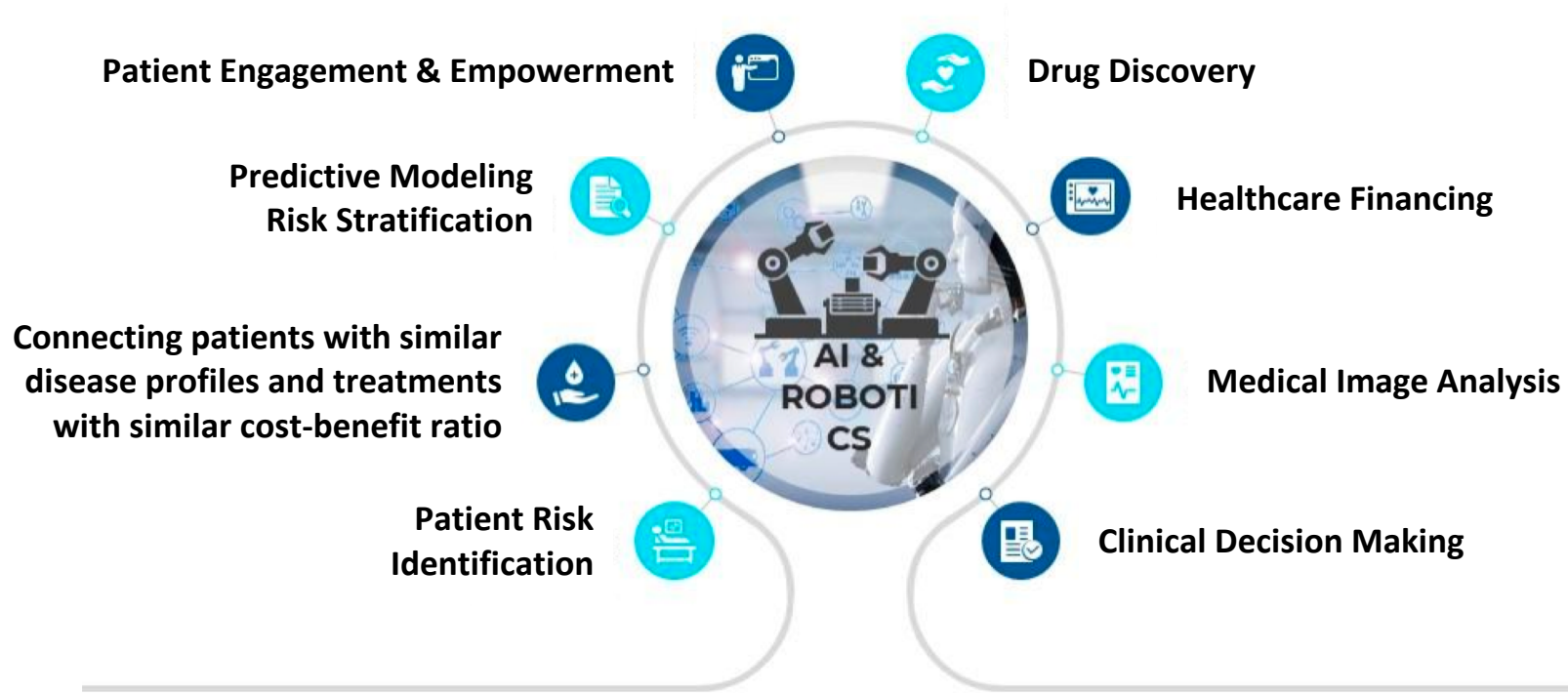https://www.javatpoint.com/goals-of-artificial-intelligence
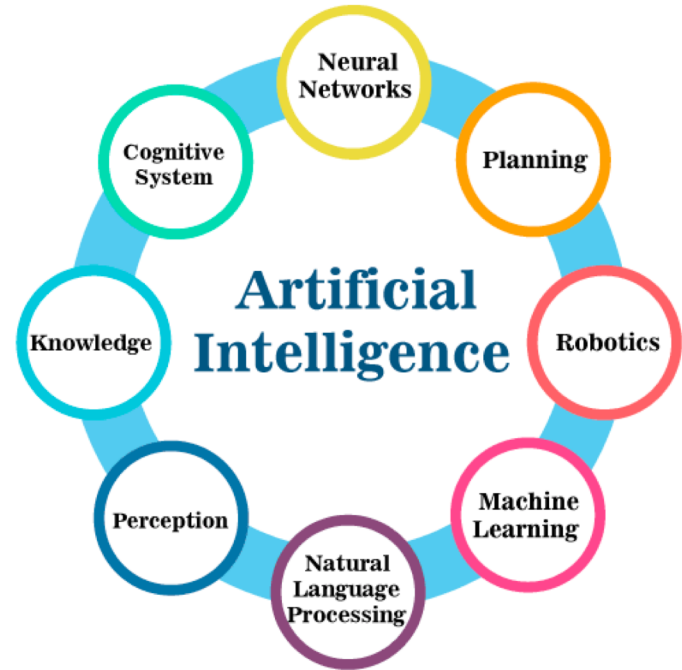
Artificial Intelligence - Use Cases

- DataOps

- Sales

- Marketing

- Logistics & inventory management

- Accounting & finance

- Customer support
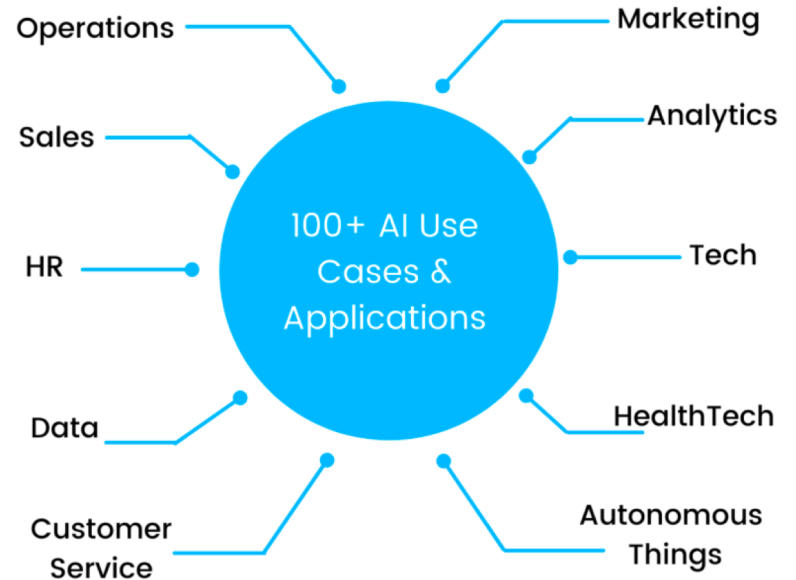
Cem Dilmegani. (2023, May 9). 100+ ai use cases & applications: In-depth guide for 2023. AIMultiple. https://research.aimultiple.com/ai-usecases/

Artificial Intelligence - Healthcare Use Cases

Patient Engagement & Empowerment

Drug Discovery

Predictive Modeling Risk Stratification

Healthcare Financing

Connecting patients with similar disease profiles and treatments with similar cost-benefit ratio

Medical Image Analysis

Patient Risk Identification

Clinical Decision Making

AI & ROBOTICS

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Key Considerations of AI in Healthcare

- Clinical Significance

- Confidentiality

- Accuracy and Safety

- Bias

- Interpretability and Explainability

- Scalability

- Building Trust

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Benefits and Opportunities

- Improving clinical outcomes

- Detection of potential medical errors

- Reduction in administrative burden

- More effective secondary data usage

- Enhancing personalized patient care

AI Implementation Challenges

- Technology Infrastructure

- Human Resources

- Data Quality

- Cost Implications

- Knowledge barrier on AI capabilities

- Forging a path for AI integration

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Panel Discussion

Dr. Michele D'Elia

- Executive Director for Medical and Scientific Affairs at *Roche Diagnostics*
- Responsible for the medical strategy for all Roche Diagnostics business units, which includes medical education, clinical studies, off-label unsolicited requests as well evaluating new technologies, providing pipeline reviews and scientific support
- Bachelor's degree in Biological Sciences from the Université de Montréal, a Master's degree in Experimental Health Sciences and a PhD in Immunology and Virology both from INRS-Institut Armand-Frappier.
- Elected board member of Medtech Canada in 2022
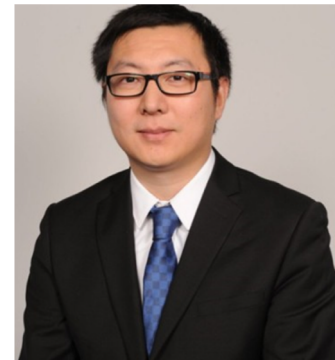
Xiyuan(Siuwin) Wang, MHA

- Director, Business Analytics and Health Information Management at *Orillia Soldiers' Memorial Hospital*
- Expertise in helping healthcare organizations to realize the full potential of their datasets with the aim to reduce costs, improve efficiency and better patient outcomes
- Master of Health Administration (MHA) from Institute of Health Policy, Management and Evaluation (IHPME), University of Toronto, and a Bachelor of Health Administration from Ted Rogers
- School of Management, Toronto Metropolitan University (TMU)

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