



Athabasca
University

INTELLIGENT SYSTEMS AND MACHINE LEARNING (ISML)

RESEARCH CLUSTER

Ali Dewan

MSc IS and Related Graduate Certificates Orientation

November 8, 2024

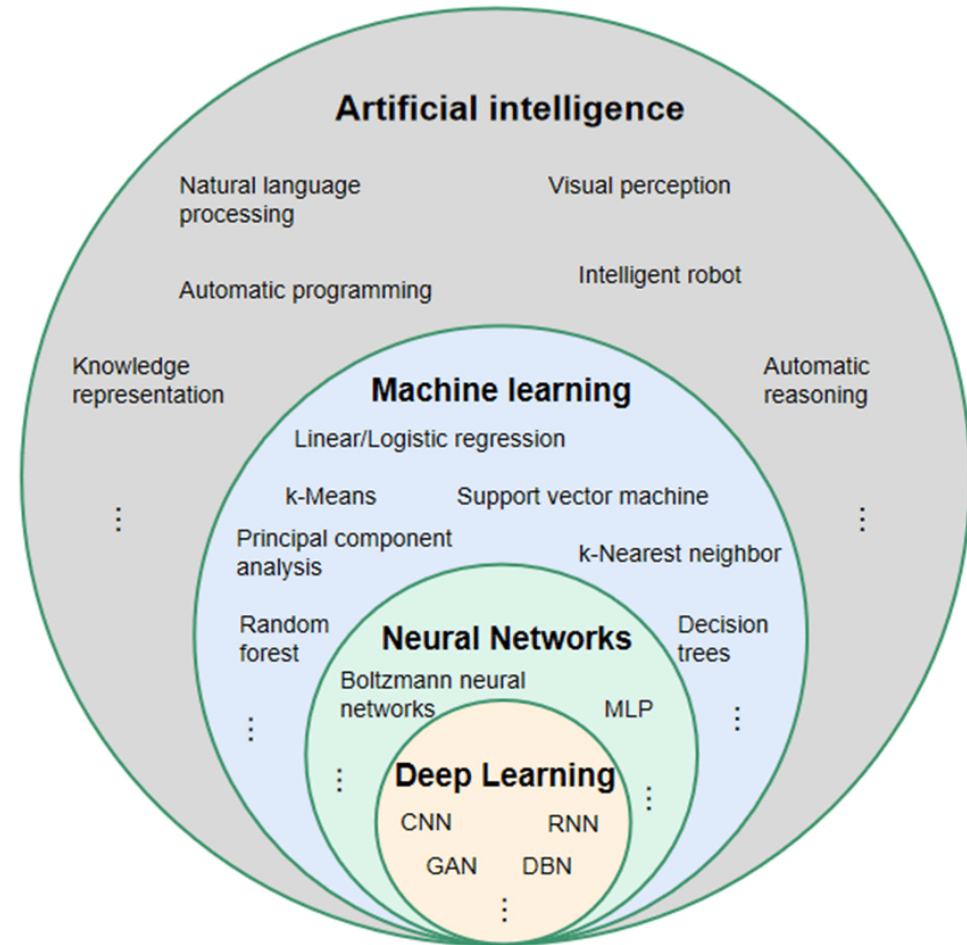
Focused on the future of
learning.

Outline

- 1) Overview
- 2) AI Timeline
- 3) ISML Cluster
- 4) ISML Goals
- 5) ISML Activities
- 6) Closely Related Courses
- 7) Funding Support
- 8) How to become a member?

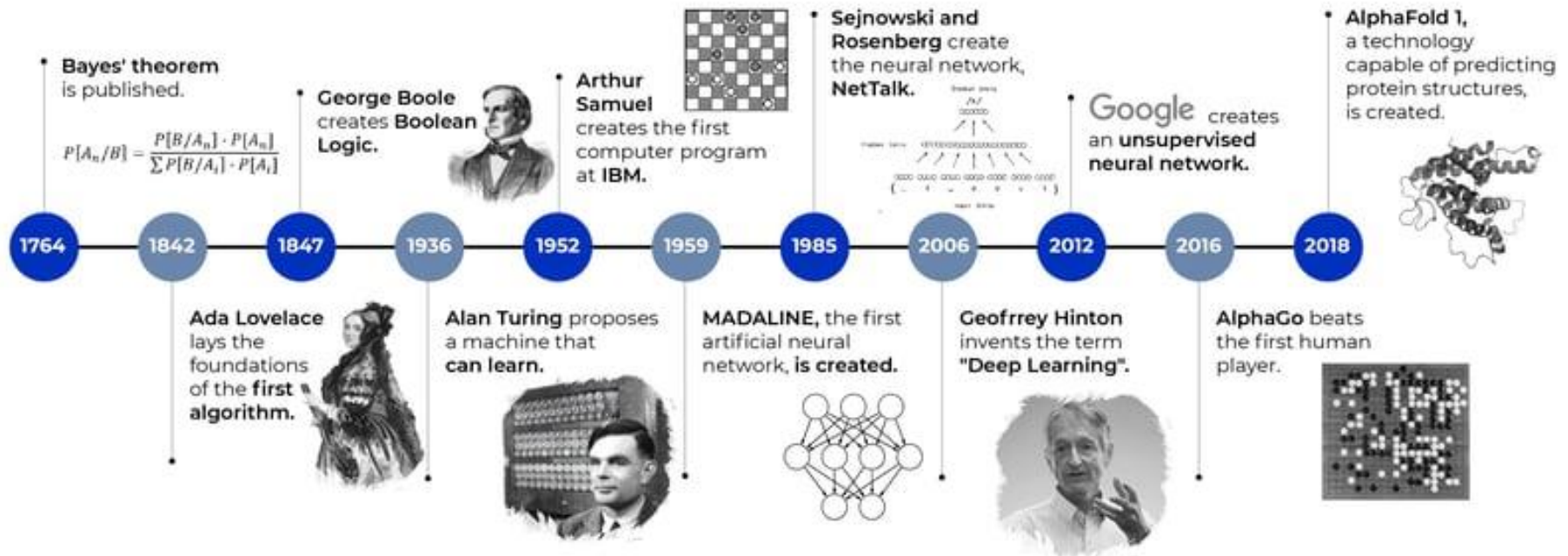
1. Overview

- **Intelligent Systems (IS):**
Systems capable of interpreting complex data, learning, adapting, and making decisions.
- **Machine Learning (ML):**
Subset of AI focused on algorithms and statistical models for computers to learn from data.



2. Machine Learning Timeline

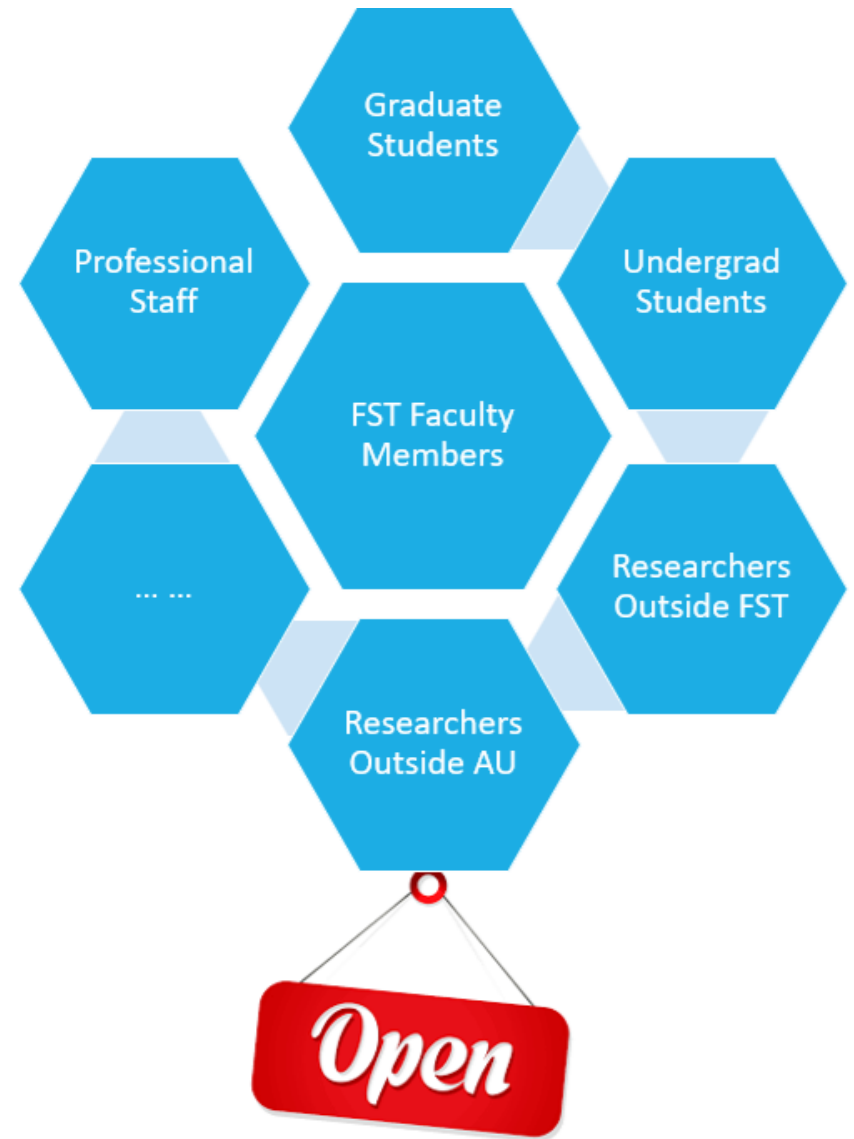
MACHINE LEARNING TIMELINE



John Hopfield and Geoffrey Hinton received Nobel Prize in 2024 for their contribution in deep learning.

3. ISML Cluster

- Sponsored by FST
- Established in Sept. 2021
- Founder and Coordinator – Dr. Fuhua (Oscar) Lin
- Members
 - 17 Academic member
 - 1 Professional
 - 20 Graduate students
 - 22 Undergraduate students



4. ISML Goals

- Provide a **collaborative and supportive research environment** for faculty and students, e.g.,
 - Partnership with other universities
 - Interaction internally and externally
 - Solving real-world problems

5. ISML Activities

- 6 online workshops held
- 10 presentations delivered
 - 4 by MSc IS students
 - 4 by academic and professionals
 - 2 by invited keynote speakers



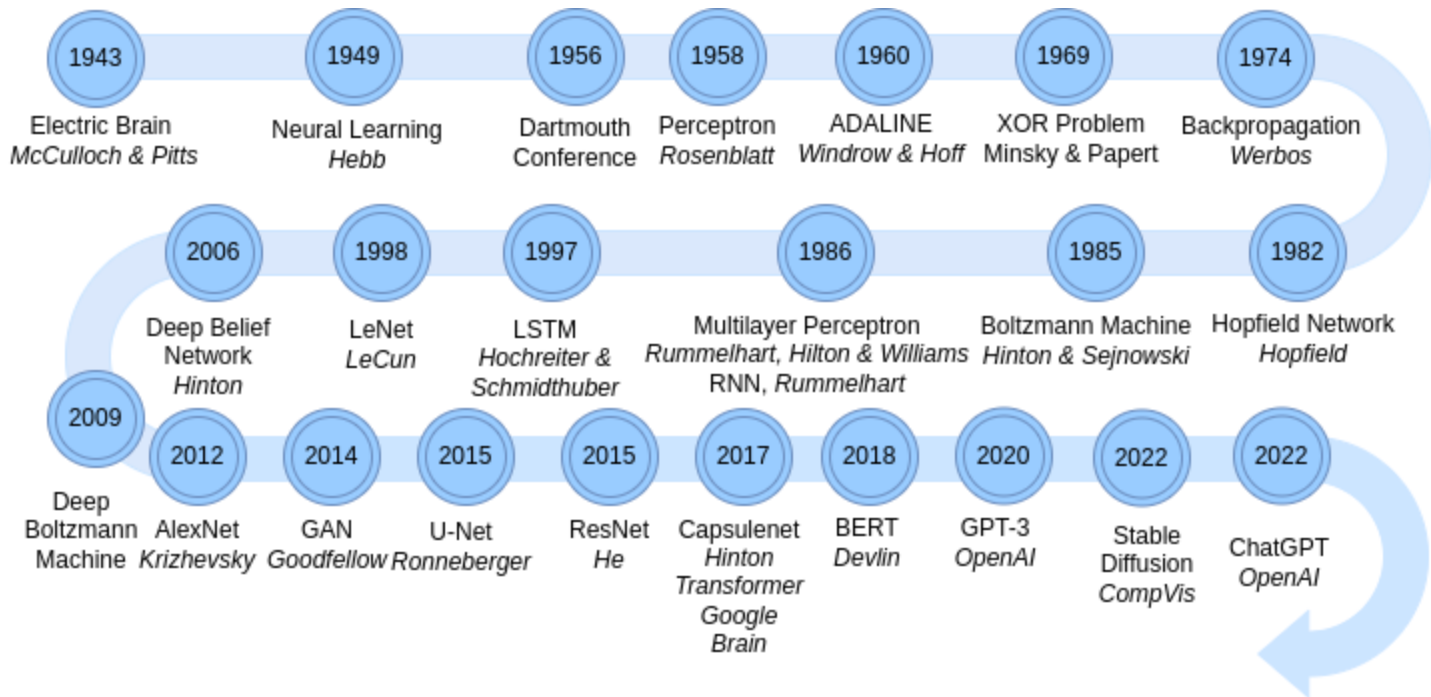
6. Closely Related Courses

- COMP452 AI for Game Developers
- COMP456 AI
- COMP657 AI Principles & Techniques
- COMP658 Computational Intelligence
- COMP659 Statistical Language Processing for Text Analytics
- COMP667 Multiagent Systems
- COMP682 Data Mining
- COMP683 Learning & Knowledge Analytics
- COMP684 Business Intelligence

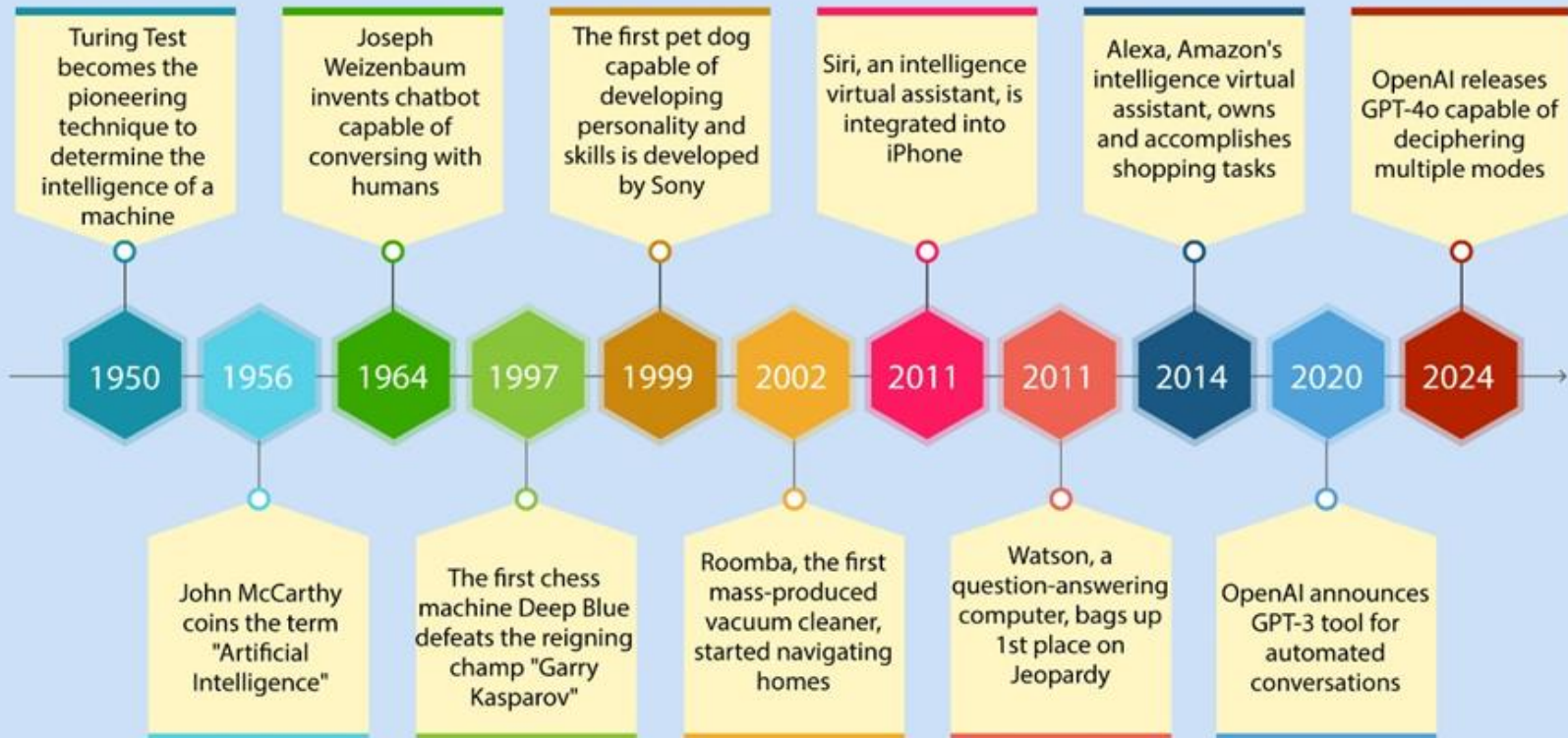
7. How to become a member?

- Cluster weblink:
 - <https://oscar.athabascau.ca/isml/index.html>
- Contact:
 - Dr. Fuhua (Oscar) Lin: oscarl@athabascau.ca
 - Dr. Ali Dewan: adewan@athabascau.ca

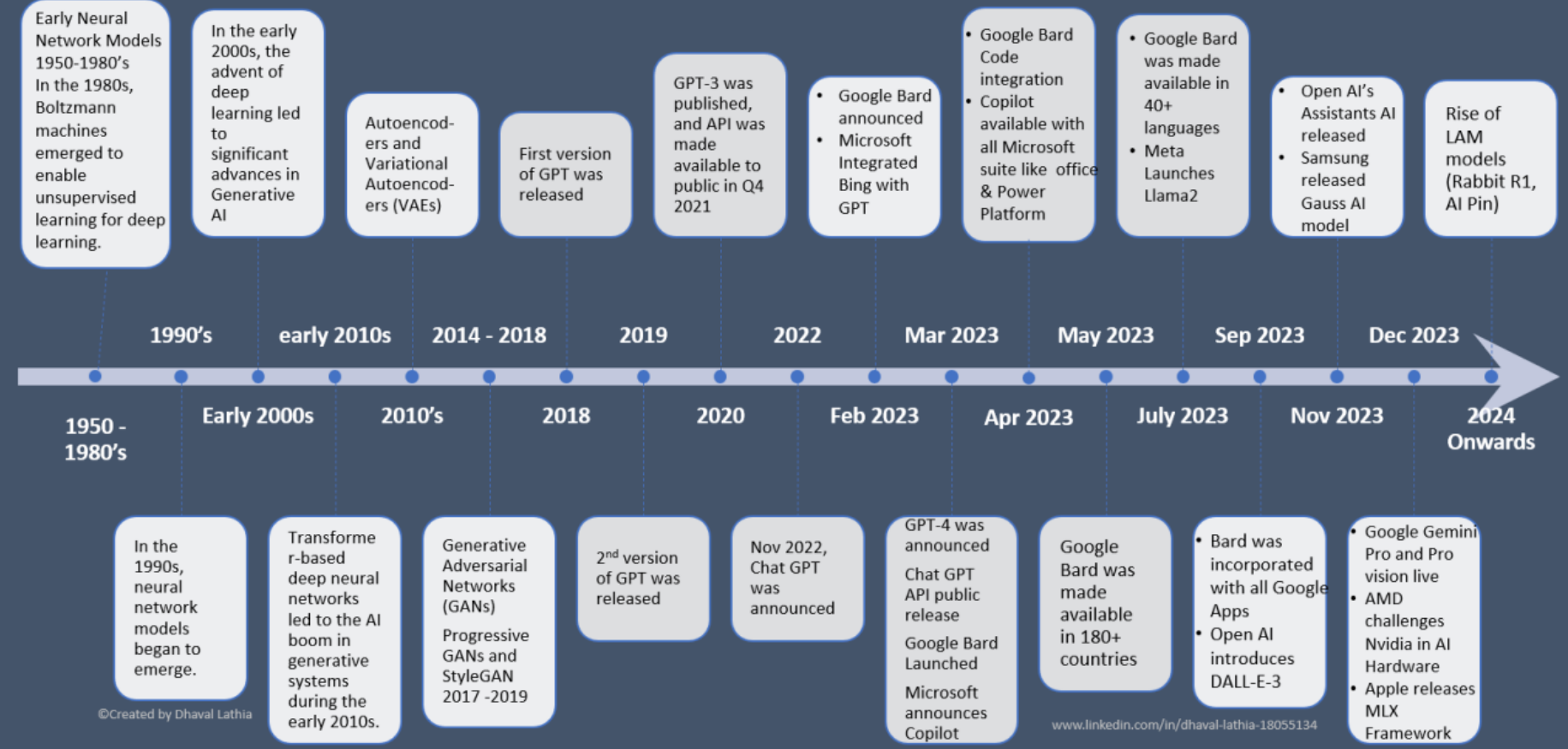
Thank You!



Timeline of Artificial Intelligence



Evolution of Generative AI



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