



האוניברסיטה
העברית
בירושלים
THE HEBREW
UNIVERSITY
OF JERUSALEM

Artificial Intelligence in Medicine

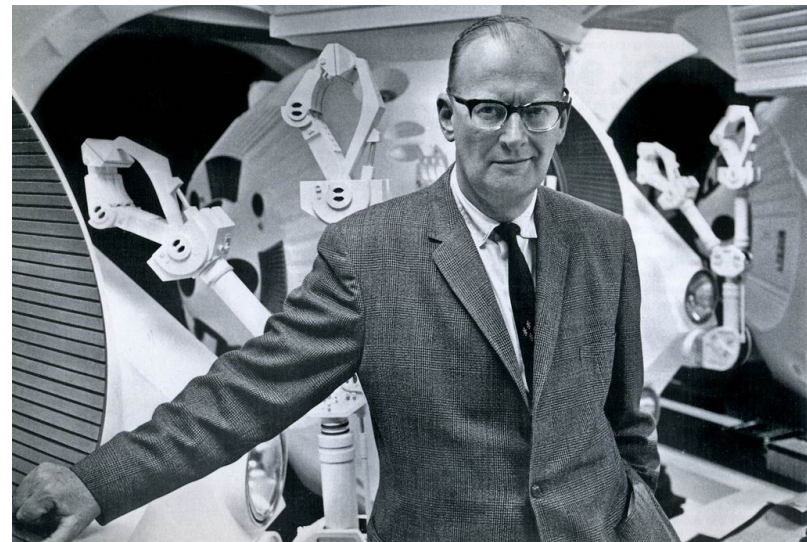
Introduction

Nir Friedman and Tommy Kaplan

1/1/24

“Any sufficiently advanced technology is indistinguishable from magic”

Arthur C. Clarke



AI and ML change medicine

- Examples

- Imaging (X-rays, MRI, CT)
- Digital pathology, dermatology
- Robotics and computer-aided surgery
- Genetics/genomics personalized medicine
- Automated analysis of medical records
- Potential risk alert based on medical history
- Recommendation systems (healthcare)

Course goals

- Understand basic concepts in AI and ML
- Demystification

- How AI can help us?
- Formulate medical decisions as AI tasks

- How AI might fail us?
- Critical thinking - how to be a smart, responsible user, aware of system limitations

Administration

- 4 exercises (two exemptions) - 30% of grade
- Group project: AI in medicine idea/application
20% of grade (in small groups)
- Exam - 50% of grade
- Quizzes (one exemption)
10% magen: $\max(\text{grade}, 0.9 * \text{grade} + 0.1 * \text{quizzes})$

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תראי, זה או הצלחה ענקית
או, רוב הסיכויים, התרסקות איזמה.