

KINDS OF INTELLIGENCE

TYPES, TESTS AND MEETING THE NEEDS OF SOCIETY

NIPS2017 Symposium

December 7th, 2017, Long Beach, CA

www.kindsofintelligence.org

Organizers:

Jose Hernandez-Orallo, T.U. Valencia / CFI-Cambridge

Matthew Crosby, Imperial College

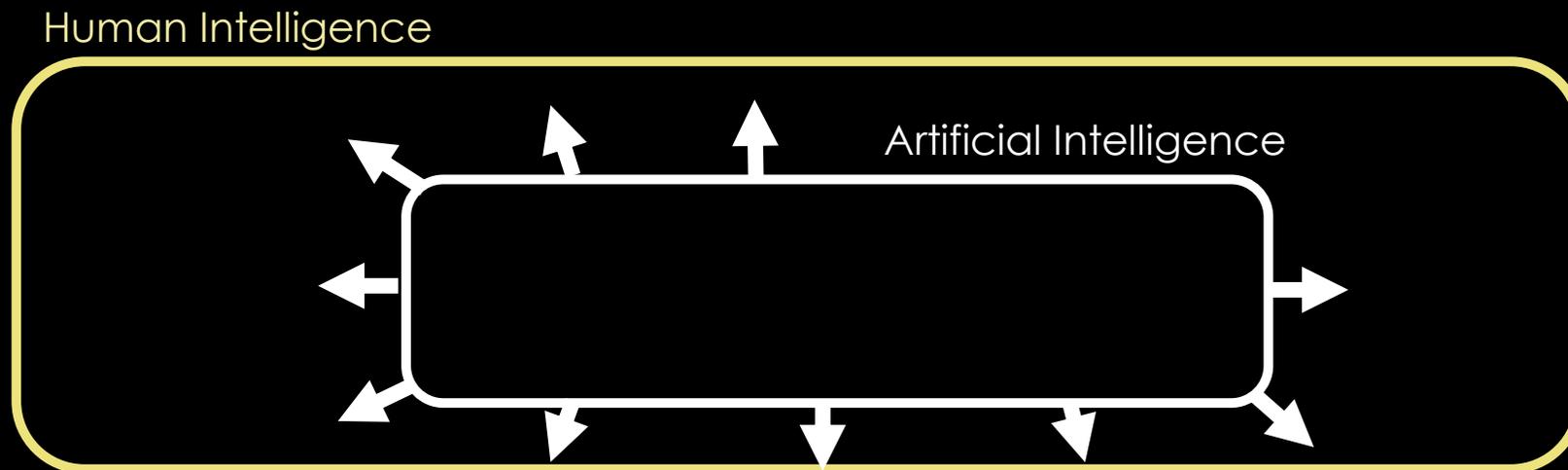
Zoubin Ghahramani, University of Cambridge

Tomaso Poggio, MIT

Adrian Weller, University of Cambridge

MOTIVATION

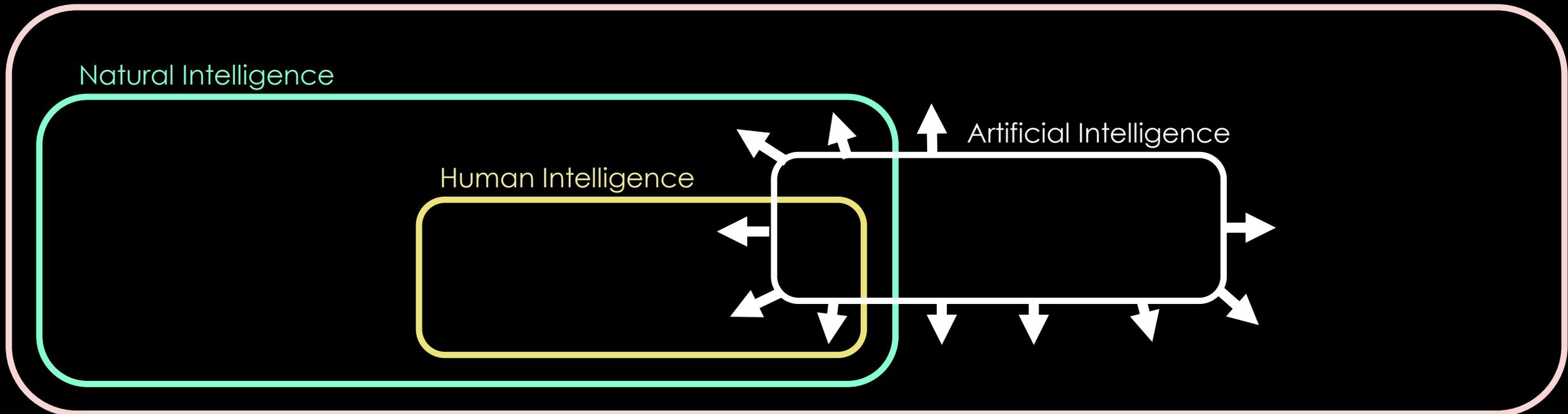
- Existing research in machine learning and artificial intelligence has been constrained by a focus on specific tasks chosen because of:
 - Their importance in human intelligence,
 - Their expected practical impact,
 - Their suitability for testing and comparison,
 - Or simply by an accident of research trends.
- Despite this diversity of tasks, we can't get rid of this simplistic view of AI:



MOTIVATION

- However, the intelligence landscape extends far beyond our current capabilities, with many unexplored dimensions!
- This is the actual intelligence landscape we want to explore!

Intelligence Landscape



GOALS

- How can we best explore and map this **intelligence landscape**?
 - A broader perspective of the possible kinds of intelligence beyond human intelligence, and the role of human-like intelligence for AI and ML.
 - Roadmaps and measurements providing an improved understanding of research objectives and breakthroughs,
 - A more purposeful analysis of where progress should be made in this landscape in order to best benefit society.

SCHEDULE

- 2:00-4:00: SESSION 1: “The intelligence landscape”
 - Speakers: **Lucia Jacobs, Alison Gopnik, Demis Hassabis.**
 - Panel: “What can we learn from types of intelligent behaviour that are not usually covered by AI methods, and the other way round?”
- 4:00-4:30: COFFEE BREAK
- 4:30-6:30: SESSION 2: “Mapping the intelligence landscape”
 - Speakers: **Josh Tenenbaum, Gary Marcus, Katja Hofmann**
 - Panel: “How can we characterise the landscape of intelligent systems and locate human-like intelligence in it?”
- 6:30-7:30: LIGHT DINNER BREAK
- 7:30-9:30: SESSION 3: “The intelligence landscape society needs”
 - Speakers: **Cynthia Dwork, David Runciman**
 - Panel: “Should we prioritize research on human-like AI or something different?”

DETAILED AGENDA ON: www.kindsofintelligence.org

ACKNOWLEDGEMENTS

- Thanks to our sponsors:

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