

CS/NEUR 125 Brains, Minds, and Machines: The Science of Intelligence

- What specific abilities could enable one to act in a way that we would call intelligent?
- What kind of behaviors would convince us that a **biological creature** (human or animal) is intelligent?
- What kind of behaviors would convince us that a **machine** (computer system or robot) is intelligent?



Brains, Minds, and Machines: The Science of Intelligence

Neuroscience

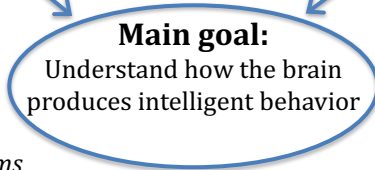


*Probe neural mechanisms
in the brain*

Cognitive Science Psychology

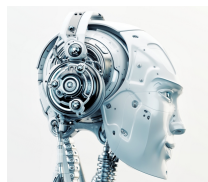


*Observe and measure
intelligent behavior*



Main goal:

Understand how the brain
produces intelligent behavior

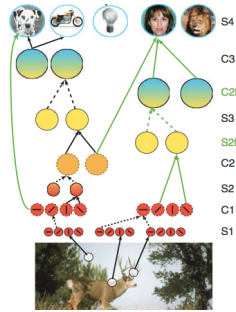
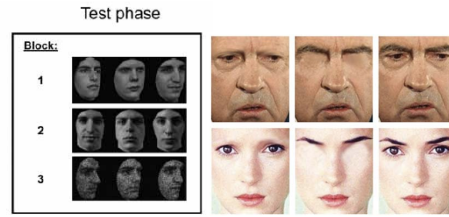
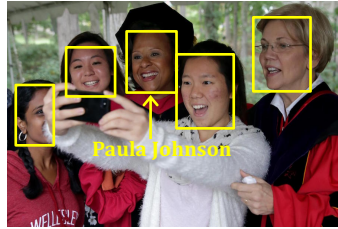


Computer Science Artificial Intelligence

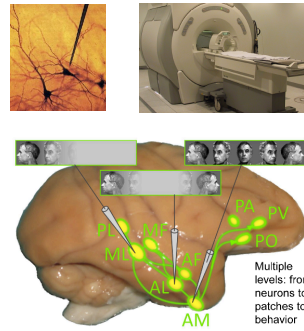
*How can intelligent behavior
be replicated in machines?*



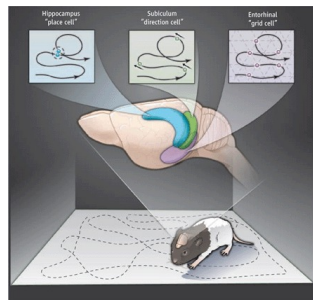
Sensing the World through Vision



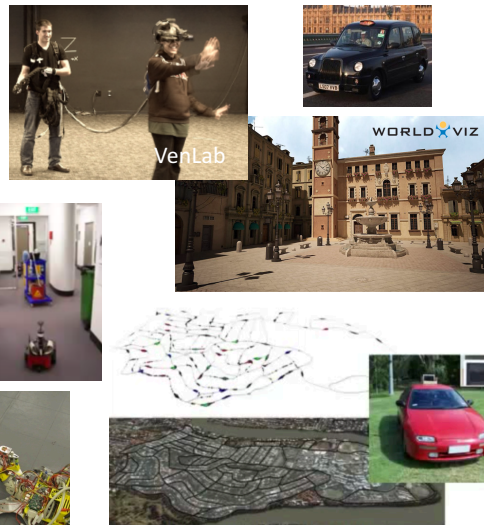
Visual recognition
recognizing faces



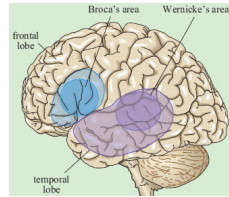
Acting on the World through Spatial Navigation



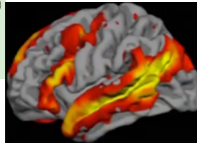
humans, rodents
& robots



Communicating with the World through Language



I stuck a pin in a carrot; when I pulled the pin out, it had a hole



A. L. I. C. E. Artificial Intelligence Foundation

Promoting the development and adoption of ALICE and AIML Free Software

A.L.I.C.E. Silver Edition | DAVE E.S.L. bot | C.L.A.U.D.I.O Personality Test | GET SITEPAL AVATARS

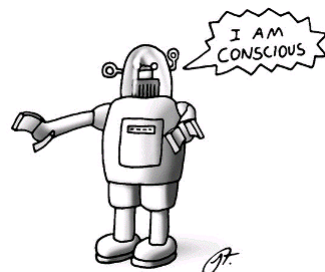
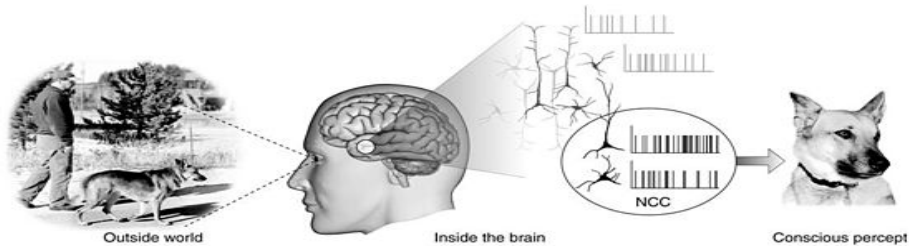
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Google Translate



Who Needs Consciousness?



www.k100r.co.uk

What is consciousness??

What has to happen in the brain for you to be conscious of something?

Does a dog have it?

Does the world-wide web?

Is it necessary for intelligence?