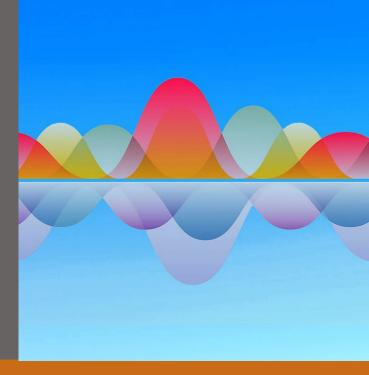


MIT CSAIL INFOLAB



The Infolab research group investigates language in different contexts: from how it is learned, to how it is grounded in visual perception, all the way to how machines can readily interact with humans.



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Research Group Address:

Infolab is located in the Ray and Maria Stata Center, Room 32-G430 at MIT.

Research Vision

Our mission is to understand human language by modeling language learning, the development of language, and how knowledge is transferred between languages. To enable communication with machines, we investigate how perception interacts with language and how robots can be controlled.

Areas of Research

- Artificial intelligence
- Machine learning
- Human-computer interaction

Research Activities

- <u>START</u> natural language system
- Detailed interpretation of object images
- Semantic parsing using vision
- Inferring "Theory of Mind" with vision and language
- Generating plans for agents using video and language
- Language learning from a computational perspective



In the News

- Infolab researchers developed a language parser to help machines learn language more like kids do.
- Technical ideas from the Infolab were incorporated into IBM's Watson system, which in 2011 <u>defeated the all-time human champions on the quiz show Jeopardy</u>!
- Prof. Katz, who helped invent virtual assistants, thinks we need <u>a new AI approach</u> to make Siri or Alexa truly smart.

Industry Applications

- Big data
- Education
- Entertainment
- Internet of things

"Al research needs to build on ideas from developmental psychology, cognitive science, and neuroscience, and Al models ought to reflect what is already known about how humans learn and understand the world."

Boris Katz

Current People in the Infolab

Principal Investigator Boris Katz

Research Scientists

Andrei Barbu Gary Borchardt Sue Felshin Henry Lieberman Xiaolan Zhou

Research Specialists/Engineers

Julian Alverio Ravi Tejwani Christopher Wang

Graduate Students

Emily Cheng Henry Hu Yen-Ling Kuo David Mayo Candace Ross Aaditya Singh Dylan Sleeper Adam Yaari

