

Algorithmic Persuasion or Manipulation?

Public Policy Risks of Artificial Intelligence

Problem Statement: Three Truths

1. Ethical organizations want to use interactions to persuade their clients, and not manipulate them
2. Organizations (of all types) will increasingly depend on interactions with their clients powered by artificial intelligence
3. It is notoriously difficult to tell a difference between persuasion and manipulation, but can be *nearly impossible* when AI is involved

- Artificially Intelligent System:
 - 1) a system that is
 - 2) non-organic that
 - 3) manifests some activity of intelligence,
 - 4) if and only if that intelligence is the result of the system itself learning (rather than being programmed or engineered)

“...that manifests some function of intelligence...”

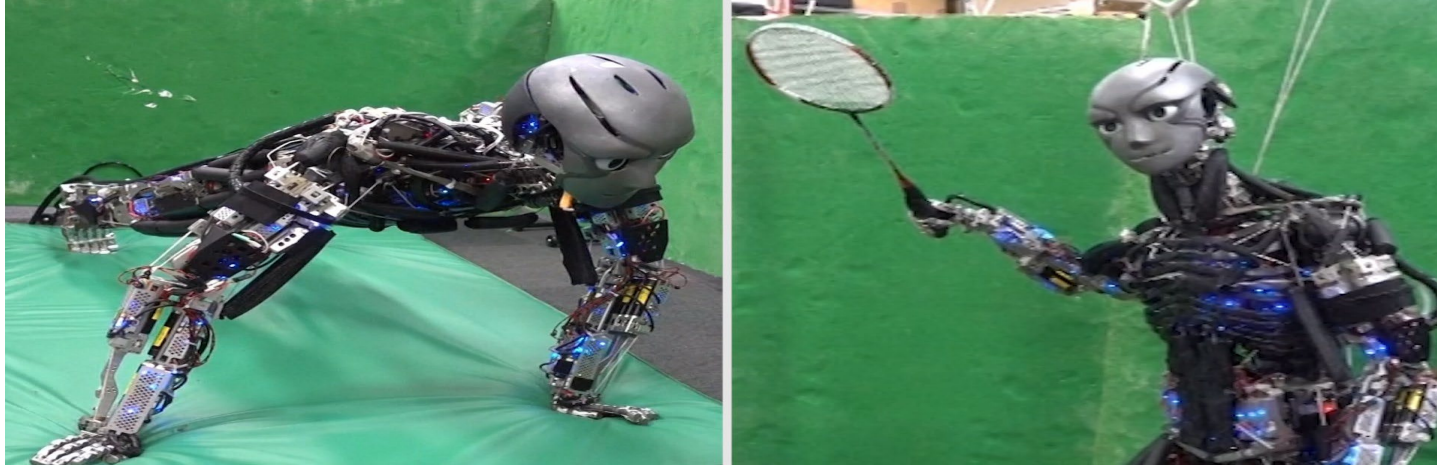
~~“What is intelligence?”~~ Vs. “What are some activities associated with intelligence?”

1. **Classification** (e.g. spam filters, risk models)
2. **Persuasion** (e.g. recommendation systems, personalized digital ads)
3. **Collaboration** (e.g. autonomous cars, digital assistants)

- But: “.... if and only if that intelligence is the result of the system itself learning...”
 - Classification: Coding Errors
 - Persuasion: Pop up ads generated from cookies
 - Collaboration: Calculator

- But those examples are engineered/programmed intelligences
- They are 1) non-organic systems, 2) activities that manifest intelligence, *but the intelligence is given from the outside*
- Automated (if/then) intelligence vs. Artificial Intelligence
- That gives rise to automated vs. autonomous interactions (i.e. when the system responds to unanticipated events)

- So how does a system learn on its own?
- *Learning* from lived experience → *Organic Intelligence*
- Process vs Result
- Why its so difficult to talk about AI without talking about ML?
In fact, have you noticed that many people have just given up?



NOT Machine Learning



- When we speak of “machine learning,” we mean when algorithms learn autonomously, **not** when robots do

- We have answered the question, “What functions do we associate with intelligence?”
- Now, an actual (but very general) working definition: artificial intelligence is any intelligence that is the product of machine learning
- Any time there is intelligence, there was learning!

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A New Problem?

- Typical of problems in the ethics of artificial intelligence:
- 1) the problem itself is old (although rarely has been understood or solved), but in the age of AI...
- 2) the problem is now at an incomprehensible scale, and
- 3) the problem has new dimensions

What is Old?: Illustration from Marketing

Clients

Needs &
Wants

Good & Services

Features &
Benefits

What is Old? Contd.

- 1) Get a better understanding of the needs and wants of your customers so you can change your goods and services
- 2) Change the pricing structure of your goods and services
- 3) Change the wants and needs of your customers

What is Old?, Contd.

- 3) Change the wants and needs (desires) of your customers
 - A) By helping your customers better understand their own desires (seems like persuasion)
 - B) By creating the desires in the first place (seems like manipulation)

What is New?: Incomprehensible Scale

- Algorithms can obtain personal information that almost no one can anticipate
 - Seemingly unrelated datapoints can be combined
 - Visiting 'innocent' websites
 - 'Innocent' social media activity

What is New?: New Dimension

- Algorithms, unlike humans, are not limited to focusing on personalized persuasion *or* persuasion based on general psychology
- General psychological traps can now be personalized

Persuasion or Manipulation?

- “[D]igital market manipulation recognizes that vulnerability is contextual and a matter of degree and specifically aims to render all consumers as vulnerable as possible at the time of purchase...” (1033). “[A]utonomy...in the consumer context [is] the absence of vulnerability” (1034)
- Ryan Calo (2014), “Digital Market Manipulation”

Persuasion or Manipulation?

- 1) 'They' can only create desires in a subject by exploiting vulnerabilities
- 2) Vulnerabilities are observable that were not before
- 3) It is easier to exploit those vulnerabilities than ever before
- So a refined question: *when does an interaction with an algorithm prey on our vulnerabilities?*

Question #1

- Is the subject aware that there is an attempt to “persuade”?

Question #2

- Is the “persuasion” directed at the ‘thinking’ brain of the subject?

Question #3

- Is the “persuasion” directed at a fully autonomous subject?

Question #4

- Is the “persuasion” something that will be beneficial for the subject?

Question #5

- Does the “persuasion” depend on timing?

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Thank you for listening!

Questions?