EPSA 2024: Talking to Machines

Michelle Torres UCLA

July 6, 2024

 Creating and manipulating realities → scary but also...they are not that great (yet)

- Creating and manipulating realities → scary but also...they are not that great (yet)
- 2 Less transparency and more uncertainty

- ① Creating and manipulating realities → scary but also...they are not that great (yet)
- 2 Less transparency and more uncertainty
- Substituting substantive human abilities with machines

- Creating and manipulating realities → scary but also...they are not that great (yet)
- 2 Less transparency and more uncertainty
- Substituting substantive human abilities with machines



This has always been a possibility...

Fox News runs digitally altered images in coverage of Seattle's protests, Capitol Hill Autonomous Zone



This digitally manipulated integer was published on the Fox News homepage on June 12 with stories about Seattle. The image combines scenes from a June 10 photograph from

- This has always been a possibility...
- ...but now everyone can do it!

Fox News runs digitally altered images in coverage of Seattle's protests, Capitol Hill Autonomous Zone



This digitally manipulated integer was published on the Fox News homepage on June 12 with stories about Seattle. The image combines scenes from a June 10 photograph from

- This has always been a possibility...
- ...but now everyone can do it!
- The results are sometimes very realistic



- This has always been a possibility...
- ...but now everyone can do it!
- The results are sometimes very realistic
- (I did not get a perfect score in the NYT "Can you tell what's real now?" quiz)



- This has always been a possibility...
- ...but now everyone can do it!
- The results are sometimes very realistic
- (I did not get a perfect score in the NYT "Can you tell what's real now?" quiz)
- But I am not that worried yet



Query: "Georgia State Patrol officers detaining a protester on the Emory University campus in Atlanta on Thursday."

Query: "Georgia State Patrol officers detaining a protester on the Emory University campus in Atlanta on Thursday."



Query: "Georgia State Patrol officers detaining a protester on the Emory University campus in Atlanta on Thursday."





Query: "Authorities detain a protester on the campus of Emory University during a pro-Palestinian demonstration."

Query: "Authorities detain a protester on the campus of Emory University during a pro-Palestinian demonstration."



Query: "Authorities detain a protester on the campus of Emory University during a pro-Palestinian demonstration."













THE RICHNESS OF VISUAL MESSAGES AND THEIR IMPACT

THE RICHNESS OF VISUAL MESSAGES AND THEIR IMPACT





 \uparrow MACHINE LEARNING \Rightarrow \uparrow HUMAN LEARNING

↑ MACHINE LEARNING ⇒ ↑ HUMAN LEARNING

 Take advantage of this: generate and debug code, process information, test LLMs

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes
 - Put inference at the forefront: more than predictions

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes
 - Put inference at the forefront: more than predictions
 - Time to think harder about uncertainty

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes
 - Put inference at the forefront: more than predictions
 - Time to think harder about uncertainty
 - Build better, unbiased (?), and rigorous training data

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes
 - Put inference at the forefront: more than predictions
 - Time to think harder about uncertainty
 - Build better, unbiased (?), and rigorous training data
 - Use that knowledge to teach people how to deal with Al generated content: tags, "scam prevention"

- Take advantage of this: generate and debug code, process information, test LLMs
- We should focus on learning:
 - Dissect and be critical of these models: learn about their mistakes
 - Put inference at the forefront: more than predictions
 - Time to think harder about uncertainty
 - Build better, unbiased (?), and rigorous training data
 - Use that knowledge to teach people how to deal with Al generated content: tags, "scam prevention"
- High emphasis on ethics and implications

