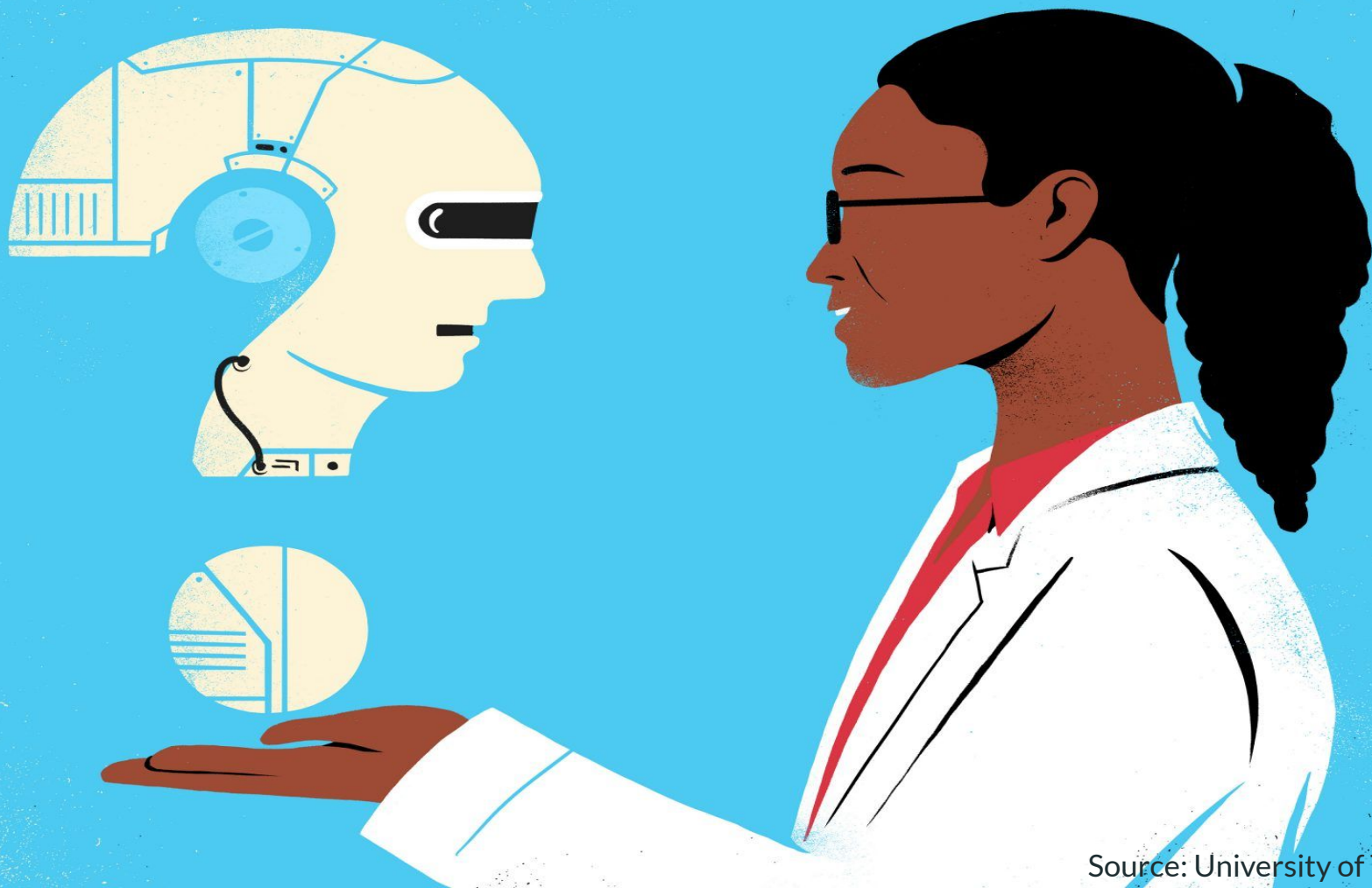


# Is the Hospital's Argument that AI Benefits Outweigh Risks Correct?

By Group 1

Jerry Xu, Seth Close, Fuad Chowdhury, Shreya Sethi, Taehun Lee

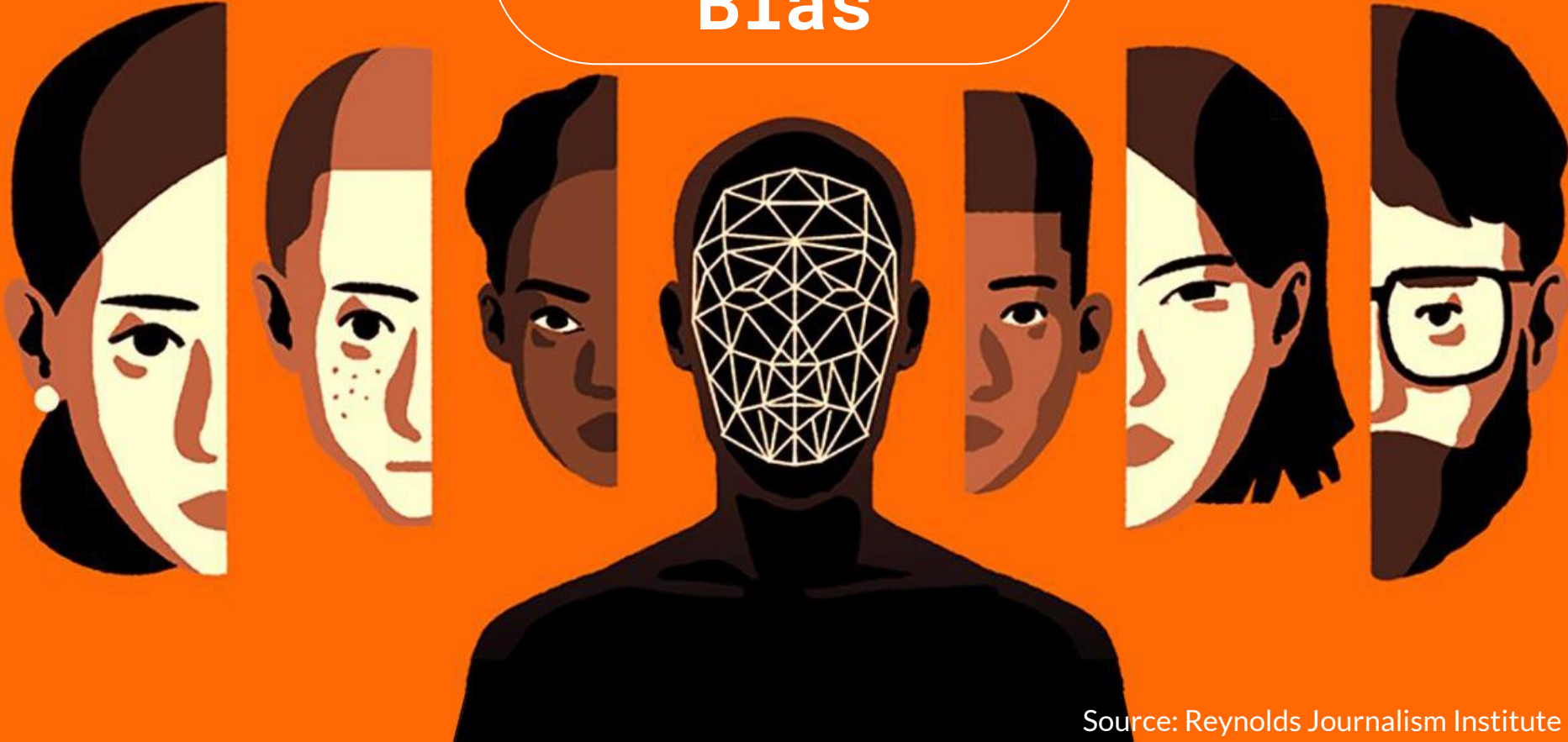


Source: University of Toronto



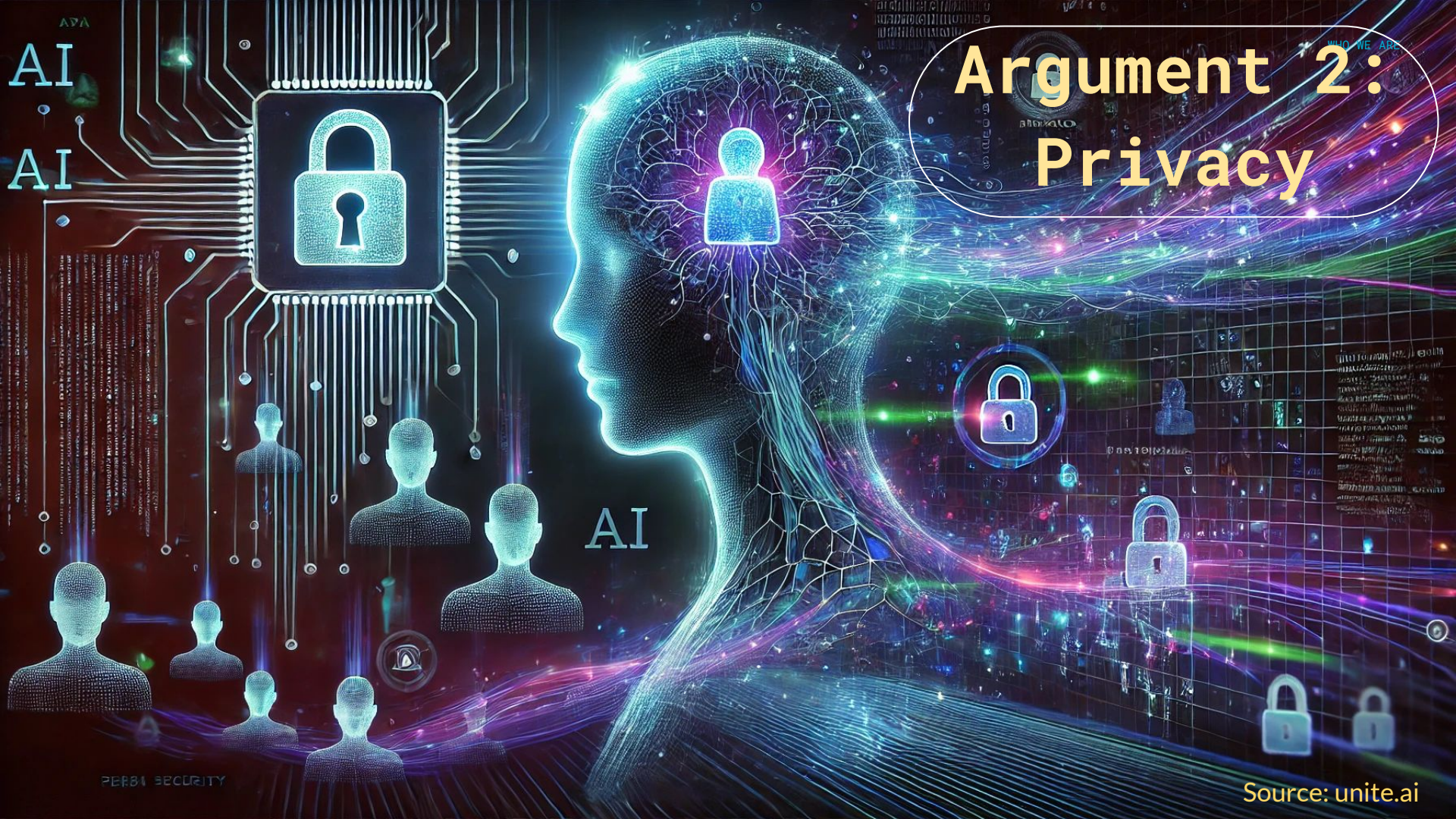
➤ Bias  
➤ Privacy  
➤ Unexplainable decision making

# Argument 1: Bias



- ❑ Underrepresentation of women and racial minorities in clinical studies (e.g., U.S. until 1993).
- ❑ COMPAS model shows how bias in training data leads to biased predictions.





# Argument 2: Privacy

AI  
AI

AI

PERBA SECURITY

Source: unite.ai

- ❑ Google & Ascension Health shared millions of patient records without consent.
- ❑ Cyberattacks (e.g., Enzo Biochem breach) expose health data to theft.



# Unexplainable decision making



# Argument 3:

## Unexplainable decision making

Source: Forbes

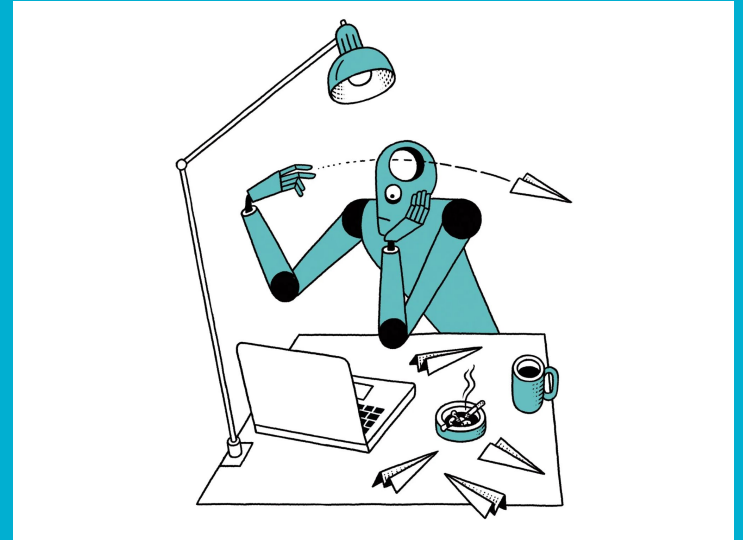


- ❑ Black-box models can't explain their decisions
- ❑ Accountability issues when AI system makes a mistake in diagnosing a patient

# ChatGPT Arguments

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1. Privacy and Data Security Concerns
2. Bias and inequality in Decision Making
3. Potential for Critical Errors



Source: New Yorker

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1. **Privacy and Data Security Concerns:** The use of AI that pulls data from various sources, including purchased data from the market, raises significant privacy concerns. Patients have a right to control their personal medical information, and the use of data from external sources could violate that right. The more data the system uses, the greater the risk of breaches or unauthorized access to sensitive health information. Even if the system is well-secured, no system is immune to hacking or data leaks, leading to potential exploitation or misuse of private information.

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2. **Bias and Inequity in Decision-Making:** AI systems rely heavily on the data fed into them, and if this data is biased or incomplete, the AI will replicate these biases in decision-making. For example, if the system uses historical medical data that reflects societal or institutional biases—such as overrepresenting certain demographics while underrepresenting others—it could lead to suboptimal or even harmful medical decisions for marginalized groups. This would exacerbate existing health disparities, rather than improve the quality of care.



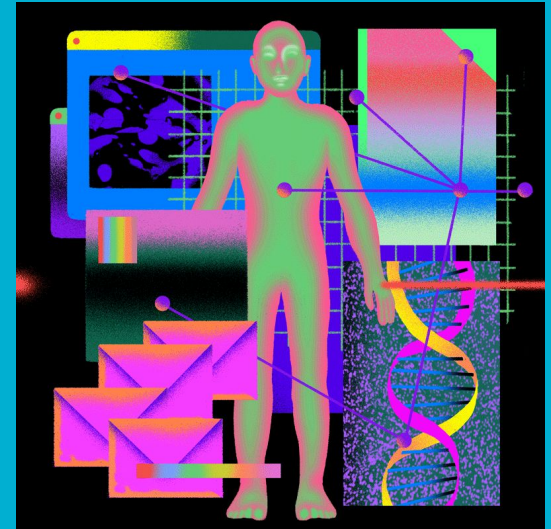
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3. **Potential for Critical Errors:** Despite AI's advanced capabilities, errors are still possible. AI systems are only as accurate as the data they process and the algorithms they use. If there is an error in data collection or a flaw in the algorithm, it could lead to incorrect medical decisions, potentially harming patients. While human doctors are also prone to error, AI could make decisions faster and with more confidence, making the impact of any mistakes more severe. In critical health situations, relying too heavily on AI could cause irreversible damage if the system fails to catch or misinterprets critical information.

# Privacy and Data Security Concerns

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- Possible privacy and data security issues
- Argument lacks depth and sources for evidence
  - We used Google-Ascension Health as an example, but they have nothing
- Response is not comprehensive
  - Did not fully expand on a lot of issues



Source: New Yorker

# Bias and Inequality in Decision Making

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- Same as our first argument, but simpler
- Does not support the argument with examples
- Makes claims with no sources, potentially wrong but hard to confirm

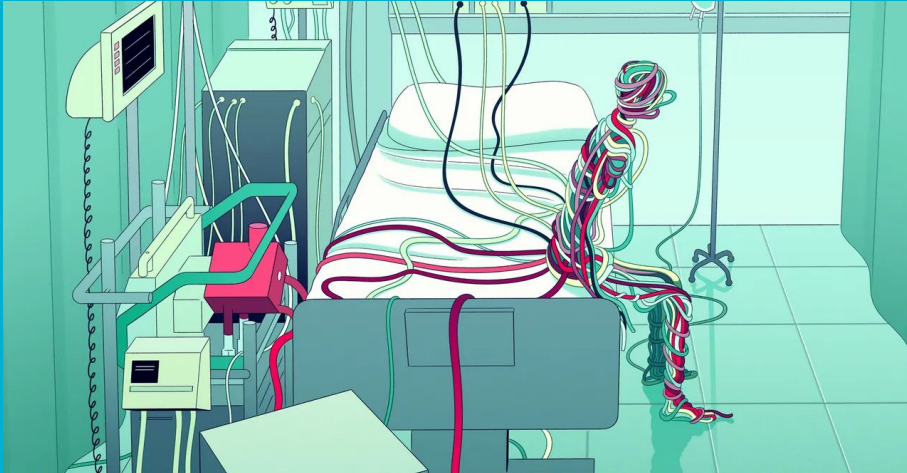


Source: NPR

# Potential For Critical Errors

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- Algorithm can lead to incorrect medical decisions
- Shares ideas with our third argument
- Again, not specific and does not provide examples



Source: New Yorker



# Positives of ChatGPT Response

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- Fairly unbiased
- Great efficiency
- Well structured and good grammatically



Source: New York Times

# Sources

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THANK  
YOU