



San Francisco | March 4–8 | Moscone Center



SESSION ID: LAW-W02

AI and Machine Learning: Managing the Risks of Major Lawsuits

MODERATOR: **Stephen S. Wu**

Shareholder
Silicon Valley Law Group

PANELISTS: **Natalie Pierce**

Shareholder
Littler Mendelson P.C.

Ted Claypoole

Partner
Womble Bond Dickinson

#RSAC

Roadmap

- Overview of Artificial Intelligence and Machine Learning
- Discussion of Legal Tools to Sue and Defend AI/ML applications
- Discussion by Panelists on Specific AI/ML Cases

AI's Impact



“I believe it's going to change the world more than anything in the history of mankind. More than electricity.”

Kai-Fu Lee
On 60 Minutes

How Does it Work? (Autonomous Vehicle Example)

Sensing

GPS

Camera

RADAR

LiDAR

Ultrasonic

Perception

6-DOF State
Determination

Obstacle
Detection/Tracking

Localization

Decision

Path Planning

Path Following

Actuation

Steer-by-wire

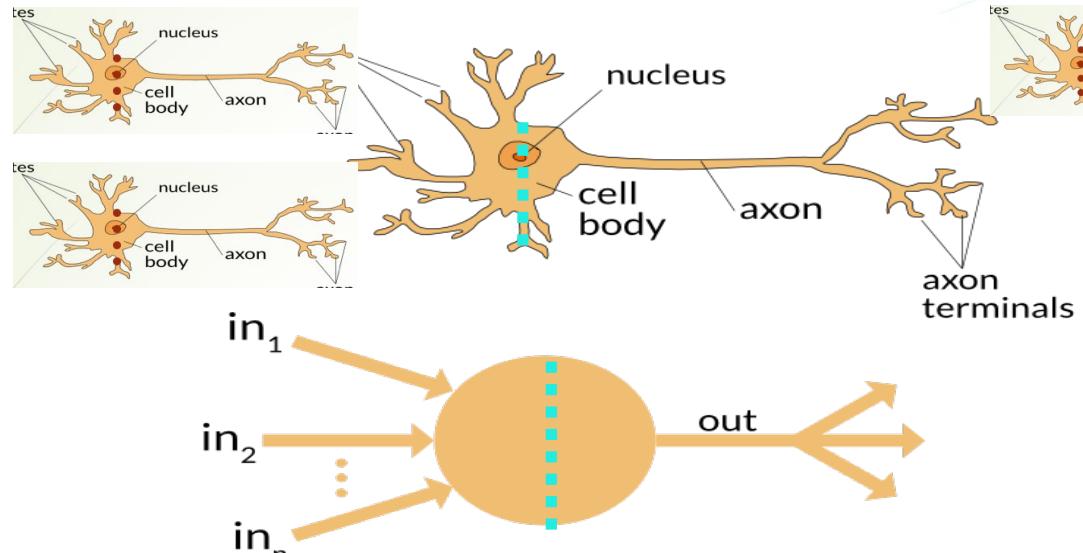
Brake-by-wire

Throttle-by-wire

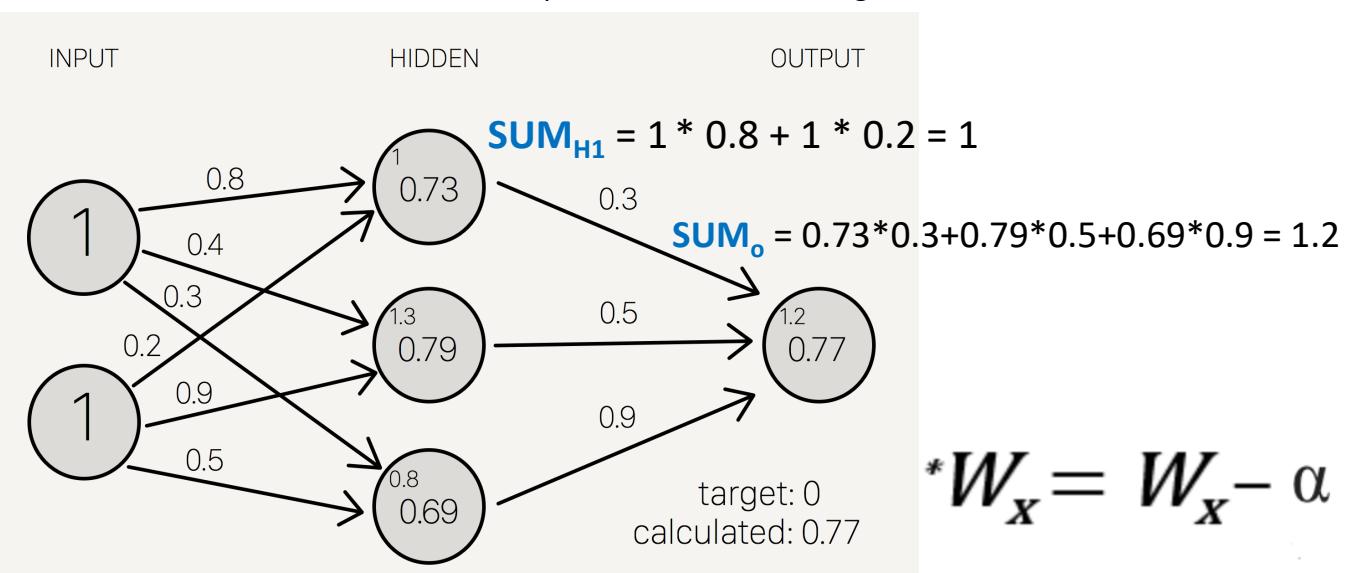
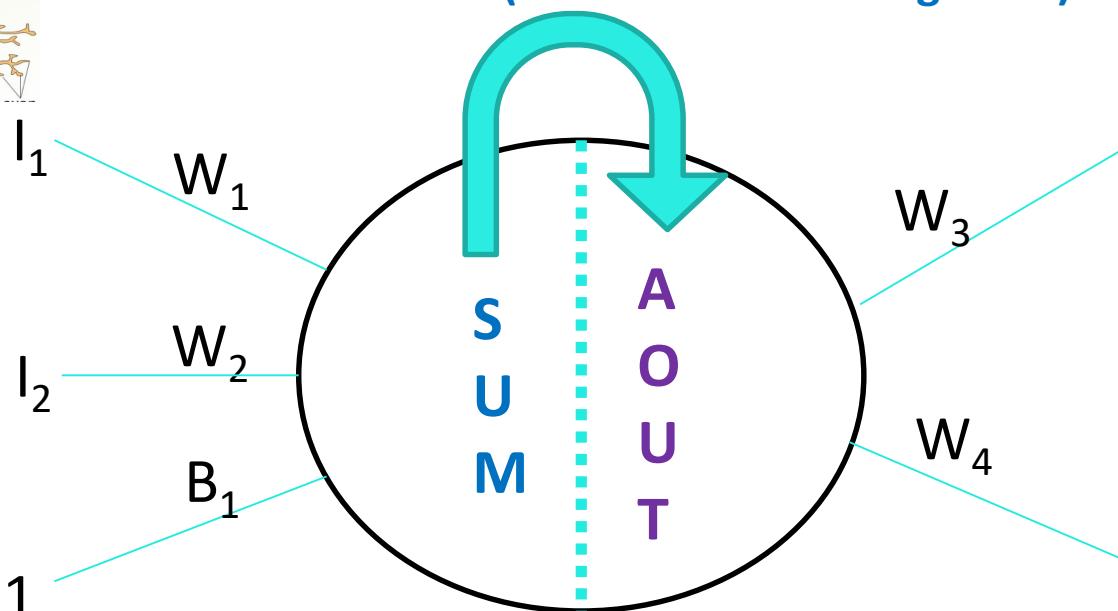
Shift-by-wire

$$SUM = I_1 * W_1 + I_2 * W_2 + B_1 \quad \#RSAC$$

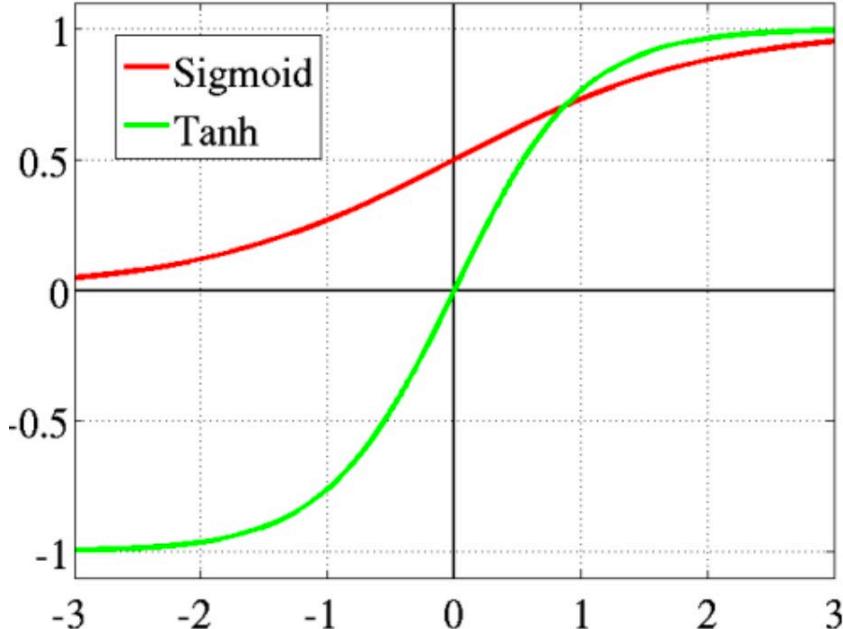
Neural Networks and the Brain



<https://www.quora.com/What-is-the-differences-between-artificial-neural-network-computer-science-and-biological-neural-network#>



$$W_x = W_x - \alpha \left(\frac{\partial Error}{\partial W_x} \right)$$



<https://stevenmiller888.github.io/mind-how-to-build-a-neural-network/>

Attacking Neural Networks



adversarial
perturbation
of
input

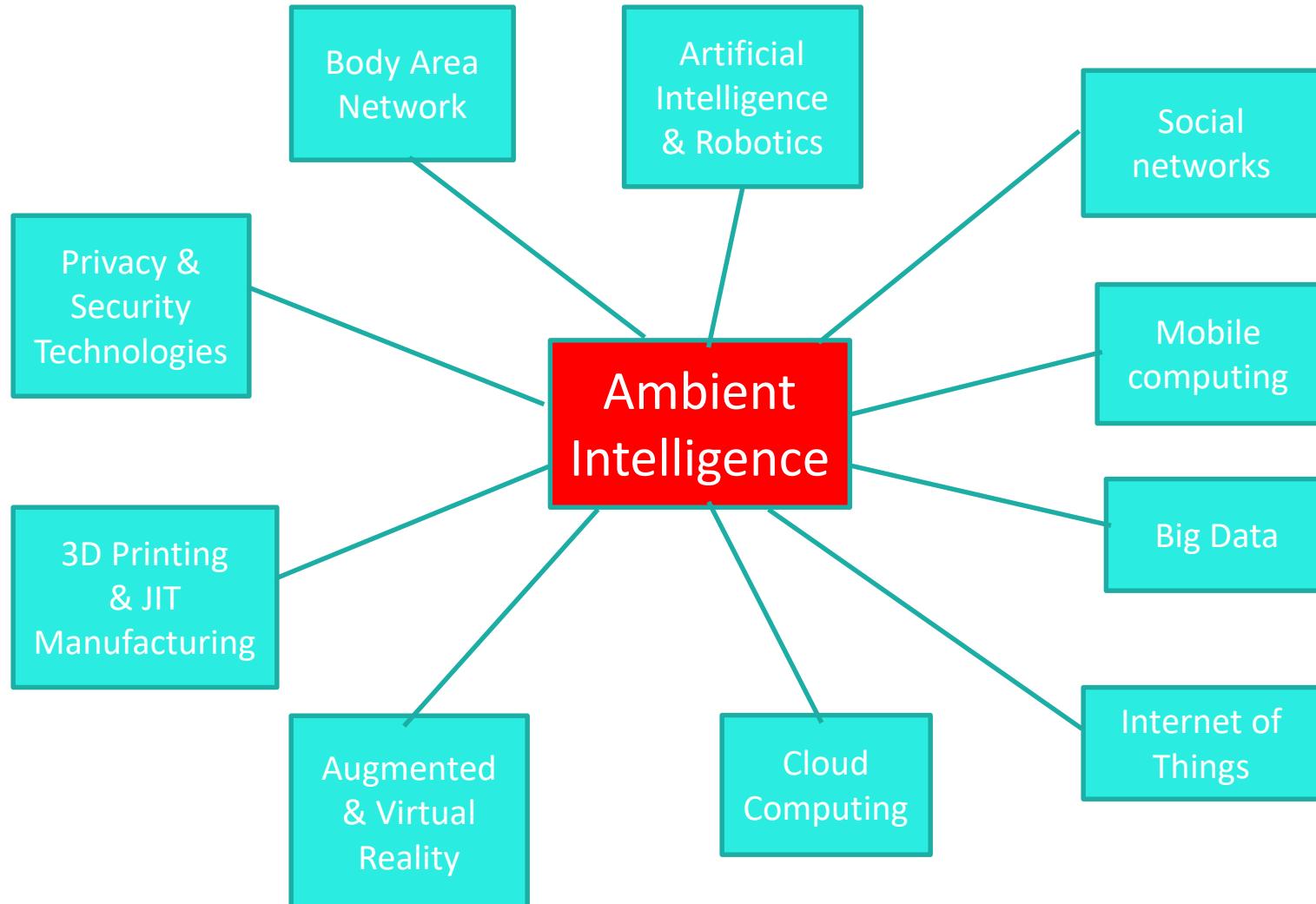


88% **tabby cat**

99% **guacamole**

github.com/anishathalye - Anish Athalye

The AI View of the World



\$4 Billion Plus Liabilities



Possible Causes of Action

- Breach of Contract or Warranty (express or implied)
- Strict Product Liability
- Negligence/Res Ipsa Loquitur
- Fraud
- Statutory Claims
 - Unfair or Deceptive Trade Practices
 - False Advertising
- Security or Privacy Breach

Use Cases of AI/Machine Learning Liability

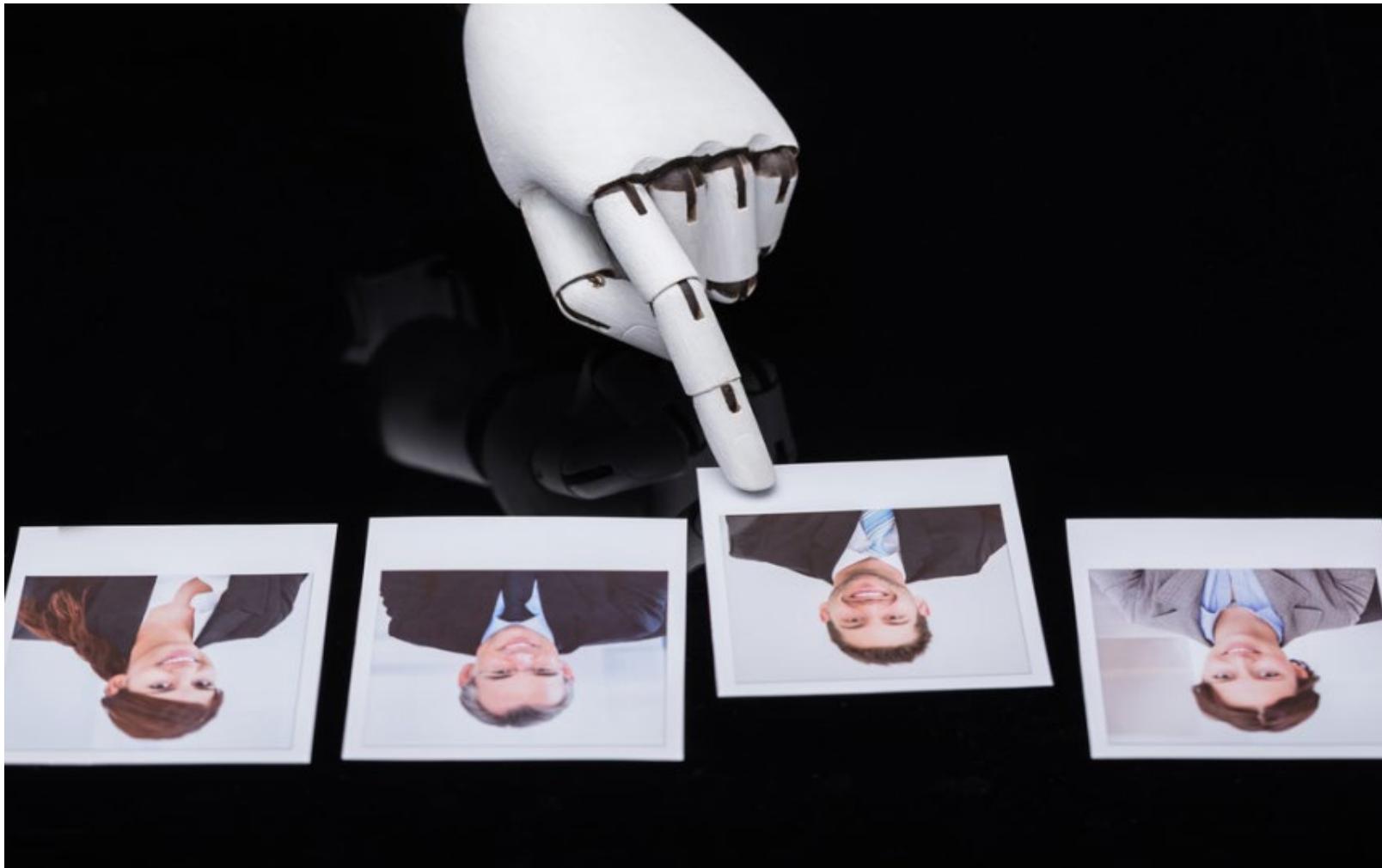
- Natalie Pierce – Bias in Machine Learning Models
- Ted Claypoole – Fintech and AI in Financial Services
- Stephen Wu – Automated Transportation and Healthcare

Unlawful Algorithmic Biases



How can we ensure the accuracy,
legality, and fairness of AI
decisions?

AI Discrimination and Hiring Practices



Algorithmic Bias

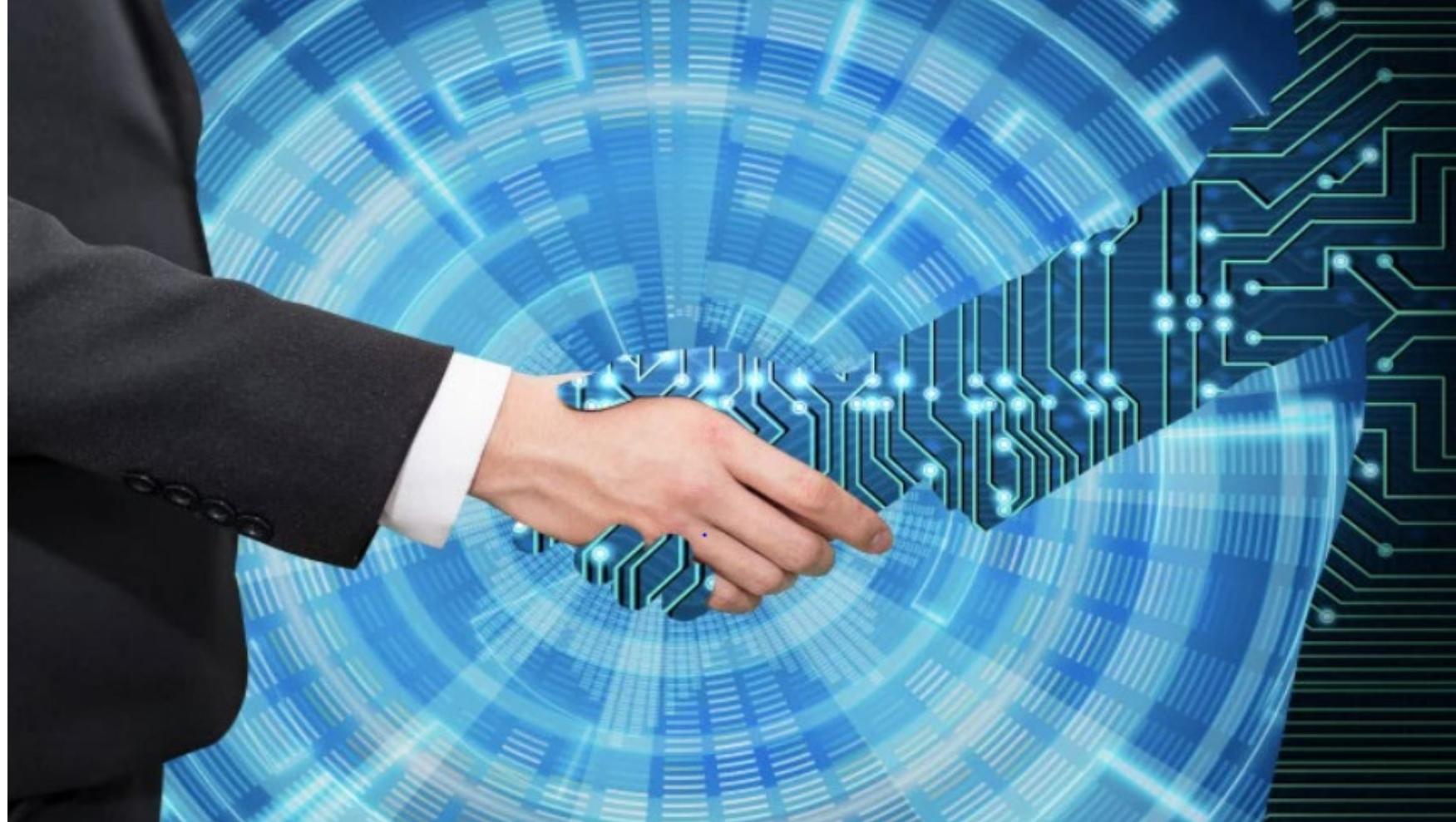


The State of AI Fairness

Human Solutions to AI Problems

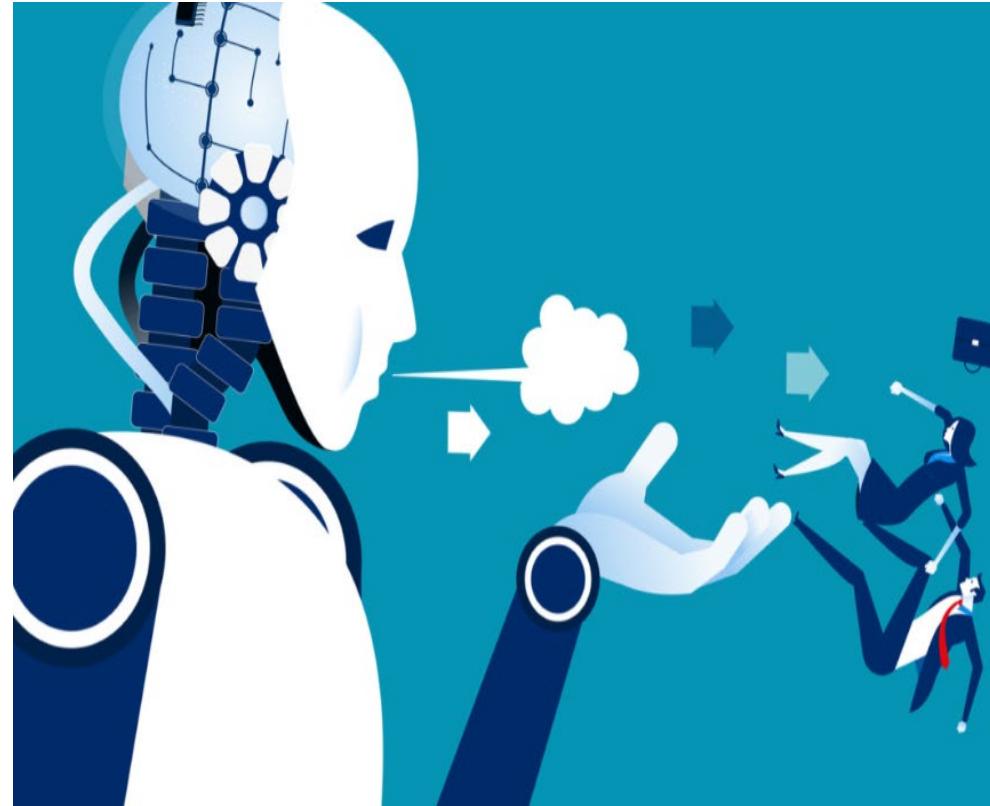


How Data Selection Can Prevent Unlawful AI Discrimination?



What happens when AI isn't so intelligent?

Who or what is liable?



AI Litigation Bait: Financial Services

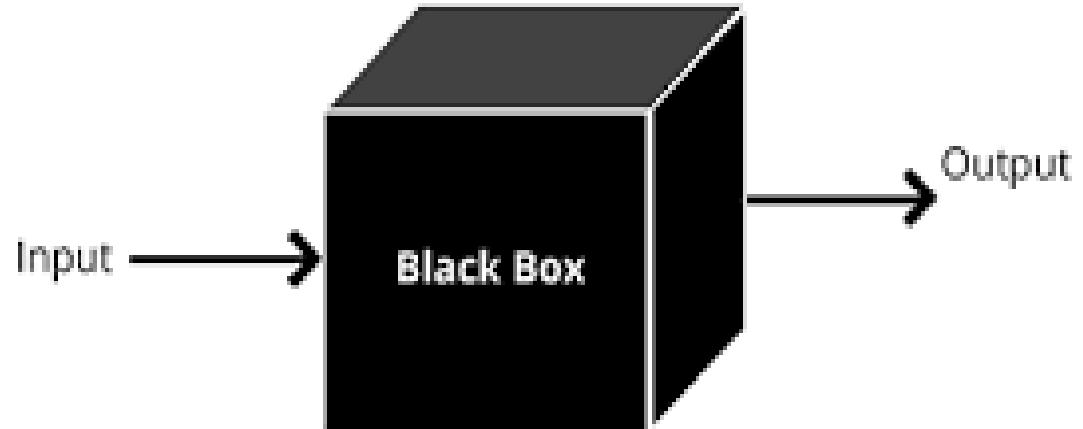


Black Box Decisions

Portfolio Risk

Evidence Risk

BLACK BOX TESTING APPROACH



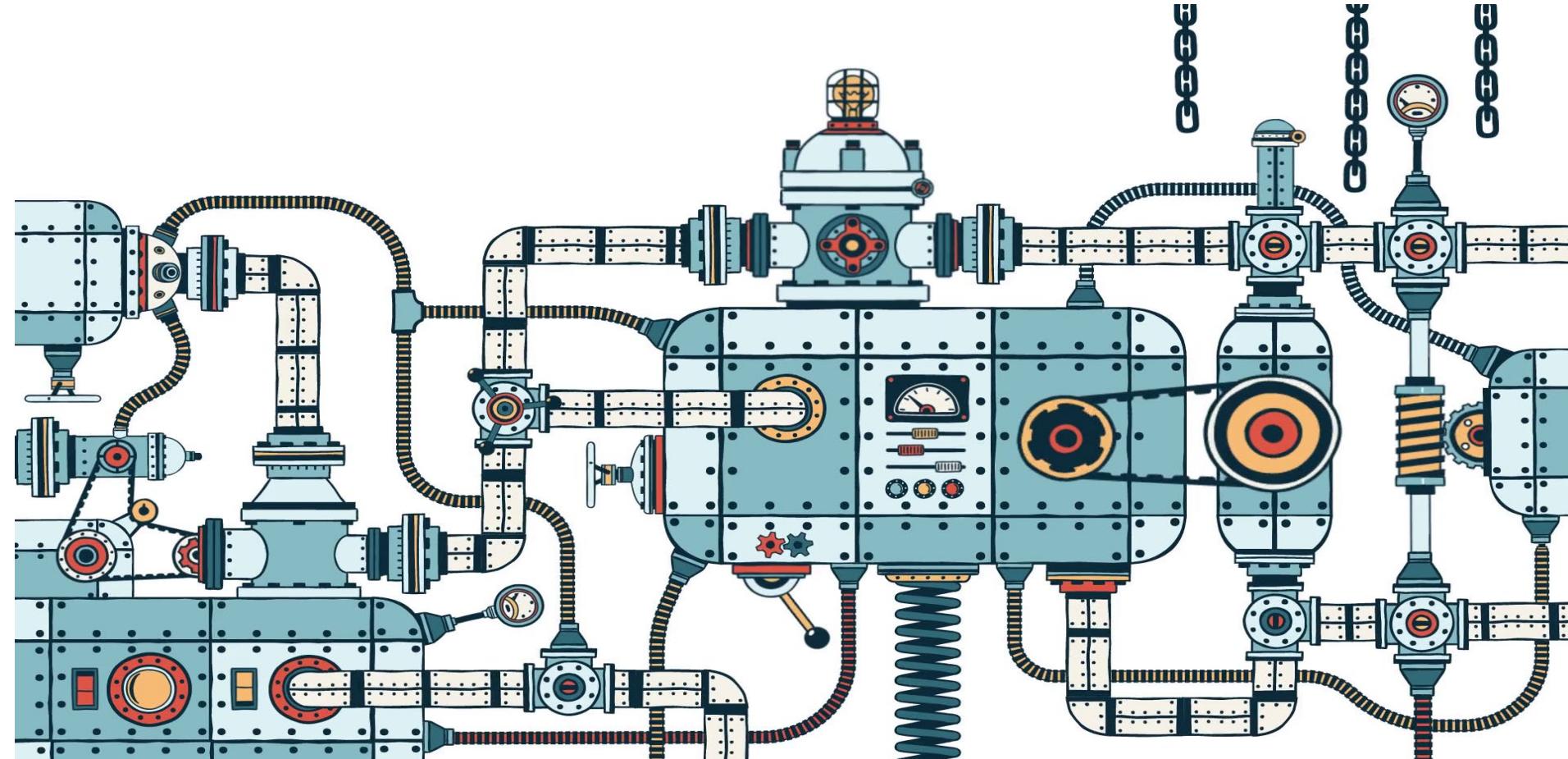
Disparate Impact Analysis

FCRA

Fair Lending Rules



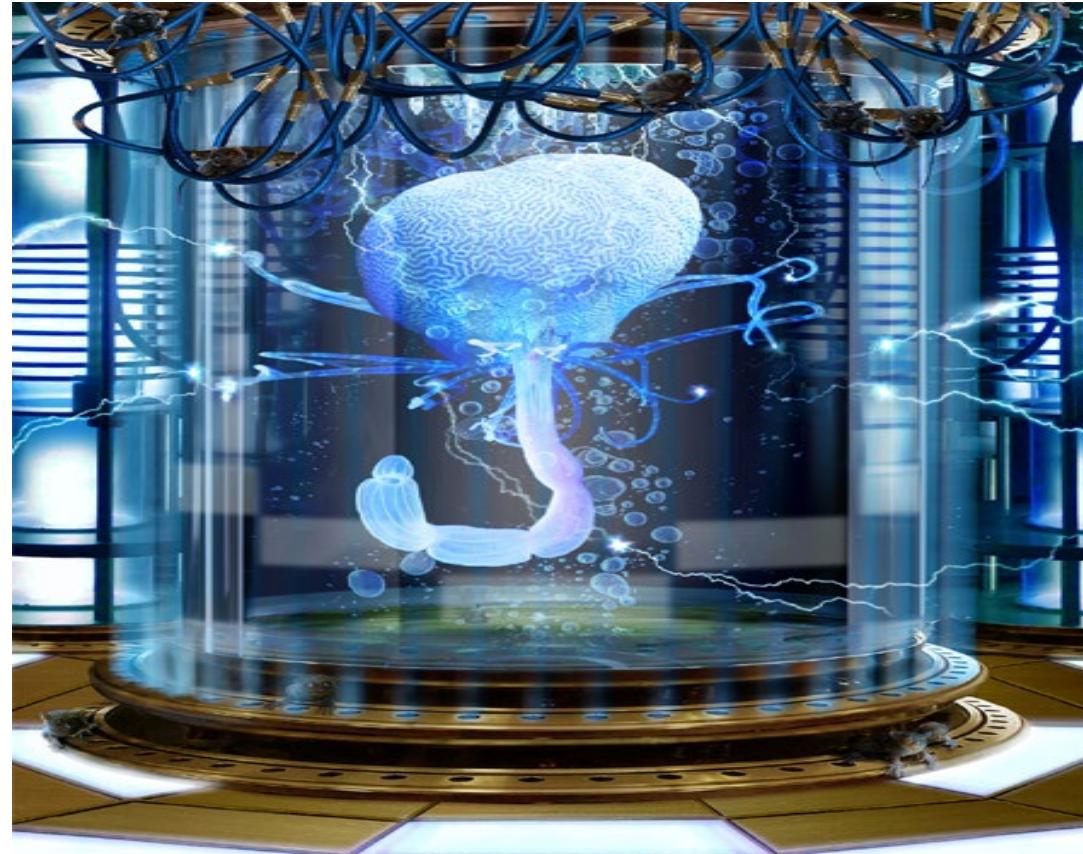
EU Machine Decision Rules



GDPR Article 22

EU Machine Decision Rules

Decision based solely on automated processing which produces legal effects concerning Data Subject

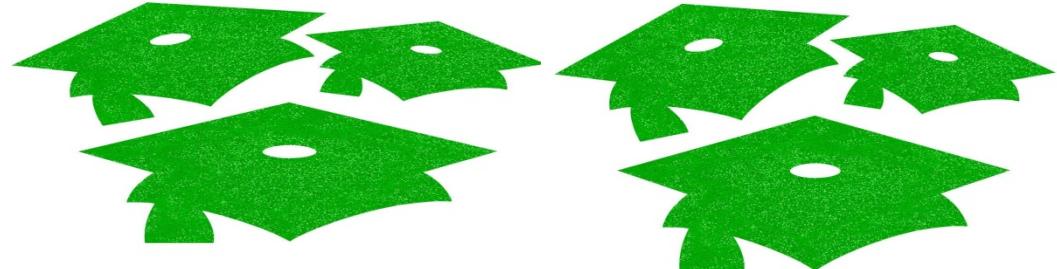


EU Machine Decision Rules

Lending



Admissions



Areas of Focus to Mitigate Legal Risk

- Transactions
- Compliance
- Risk Management Process
- Investigations/Incident Response
- Governance (Policies and Procedures)

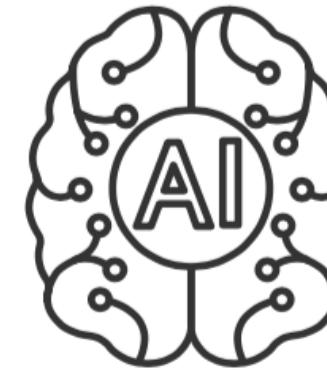
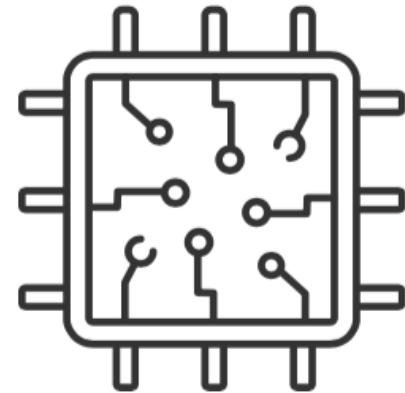
Autonomous Driving



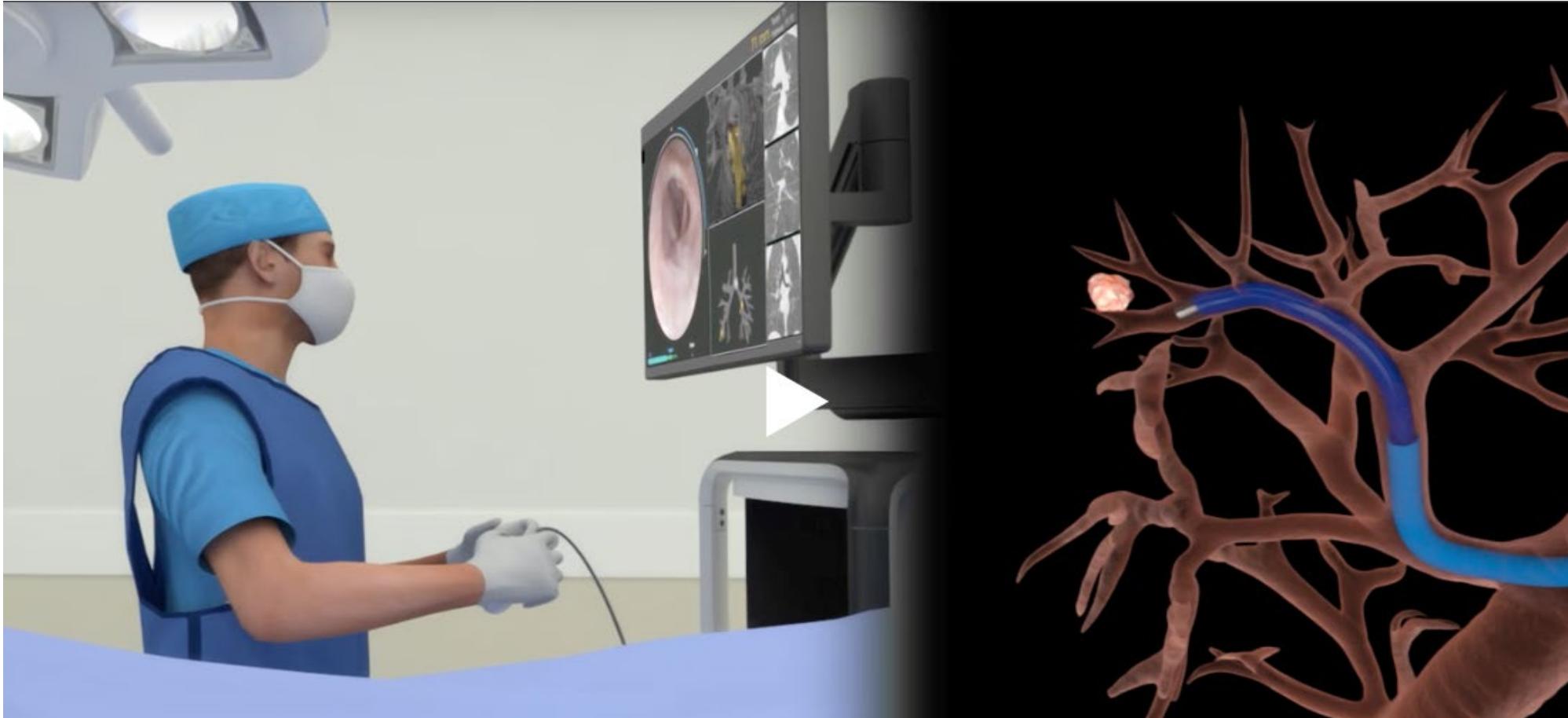
Future Modes of Transportation



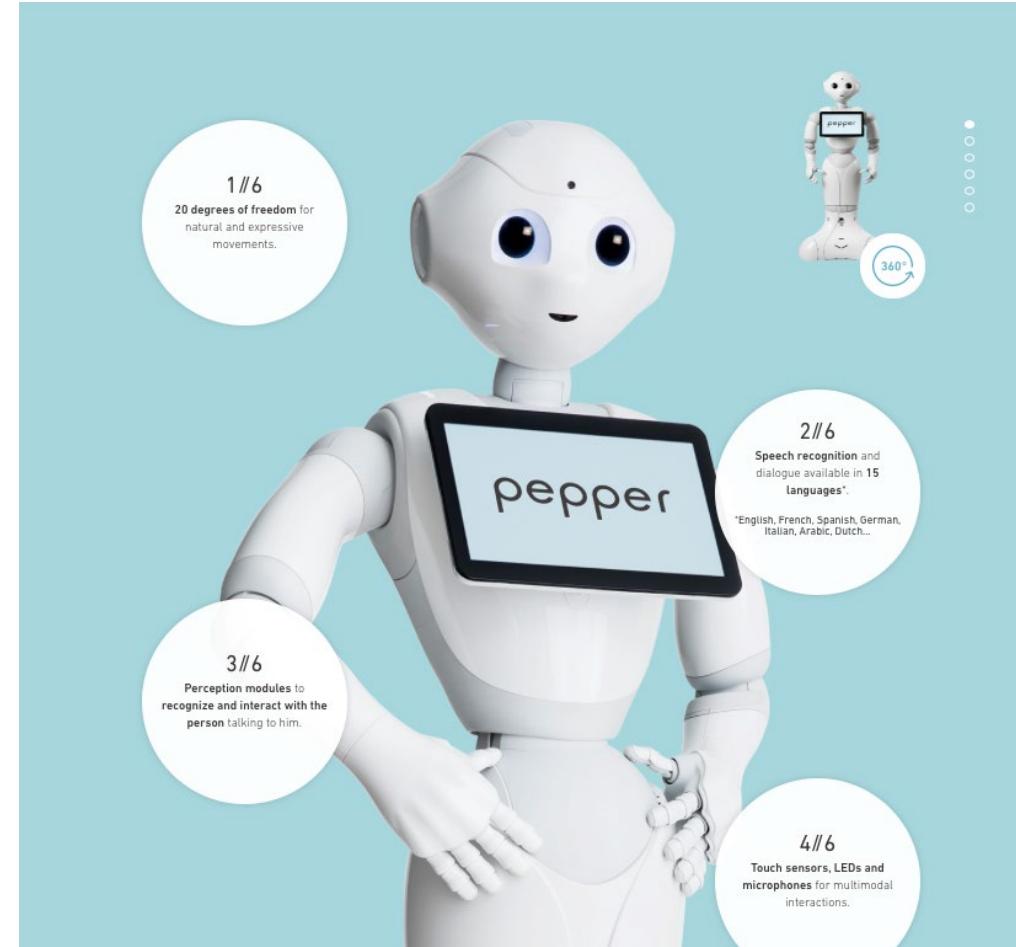
AI in Healthcare



Surgical Robots



Service Robots in a Hospital Setting



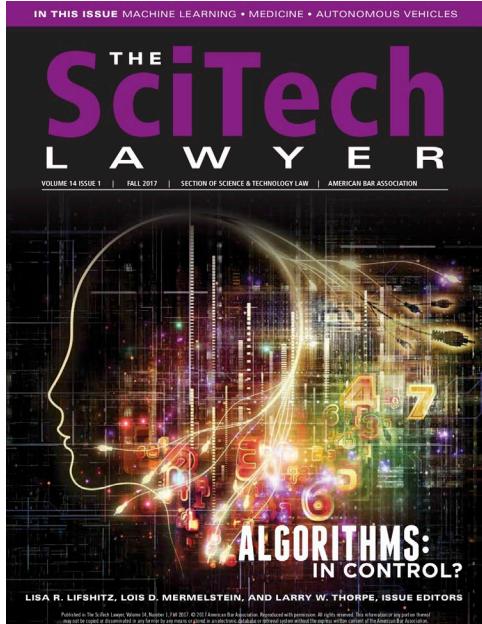
6 Action Steps

To Minimize Legal Liability and Prepare for a World of AI

1-Read this Book



2-Educate Yourself on Policy and Business Issues



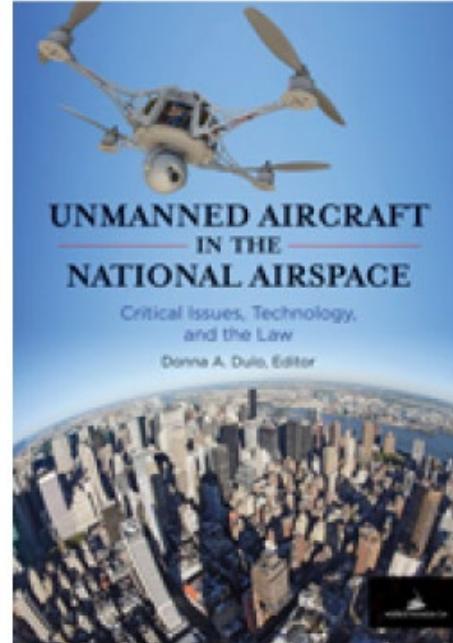
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The Internet of Things:
Everything Will Be Connected
1 PM EST

Learn about the hot Internet of Things law topics you need to know in our increasingly connected world.

MIT SLOAN SCHOOL OF MANAGEMENT
MIT COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE LABORATORY (CSAIL)
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Certificate Track: Management and Leadership



3-Join the Community – Meetup on Robotics and AI Policy Issues

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San Jose, CA
Founded Nov 21, 2014

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Group reviews 6

How governments can adapt to policy challenges of AI and Robotics

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Wednesday, September 27, 2017
10:00 AM to 11:00 AM

Your RSVP: Yes

Change

Invite a friend

Tools

11 going

4-Form a Team to Tackle AI Risk



5-Assess AI's Impact to Your Organization

24
OCT

Past Meetup

AI Impact Assessments as a Tool for Compliance and Risk Management



Hosted by [Stephen Wu](#)

From [Robotics, Artificial Intelligence, and the Law](#)

Public group [?](#)

<https://bit.ly/2GSQo8T>

6-AI Risk Management by Design: Develop the Program



Documented policies, procedures,
form agreements, etc.



Applied to cover specific AI and
robotics issues and risks

Questions?

Contact Information

- Natalie Pierce npierce@littler.com
- Stephen Wu ssw@svlg.com
- Ted Claypoole
Ted.Claypoole@wbd-us.com