



A LAW CORPORATION



Artificial Intelligence and Robotics: Ethical, Legal, and Social Implications

Stephen S. Wu

May 15, 2020

Society of Corporate Compliance and Ethics
San Francisco Regional Conference

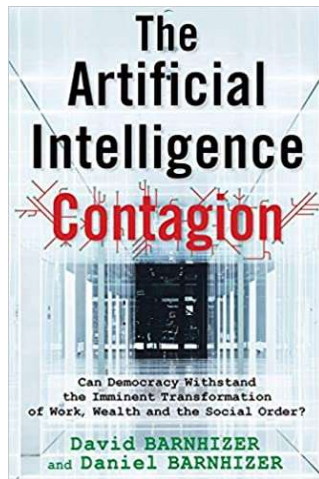
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“Contagion”

- A changed world
- Tremendous job losses lead to widescale unemployment; jobs not returning
- Wide swath of the population becomes dependent on the government for survival
- Universal basic income concepts
- Massive deficit spending
- National and global social dislocation

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The AI Contagion 2019

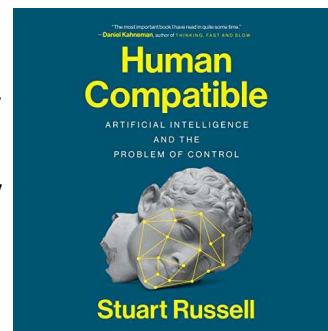


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AI Importance

- “AI is rapidly becoming a pervasive aspect of the present.”
- AI “is the dominant technology of the future.”
- “gaining access to considerably greater intelligence would be the biggest event in human history.”

Stuart Russell, Human Compatible (2019)



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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

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Four Key Principles

- AI and robotics technologies are here and growing
- Tremendous impact of the technology
- Legal issues will arise
- All of us play a role . . .

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Artificial Intelligence Is . . .

- A field of study
- Outgrowth of a 1956 Dartmouth conference
- Machines simulating features of human intelligence
- Perception-reasoning-action
- “the future” (WaPo article)
- Existential threat?
- A source of hype
- A game changer

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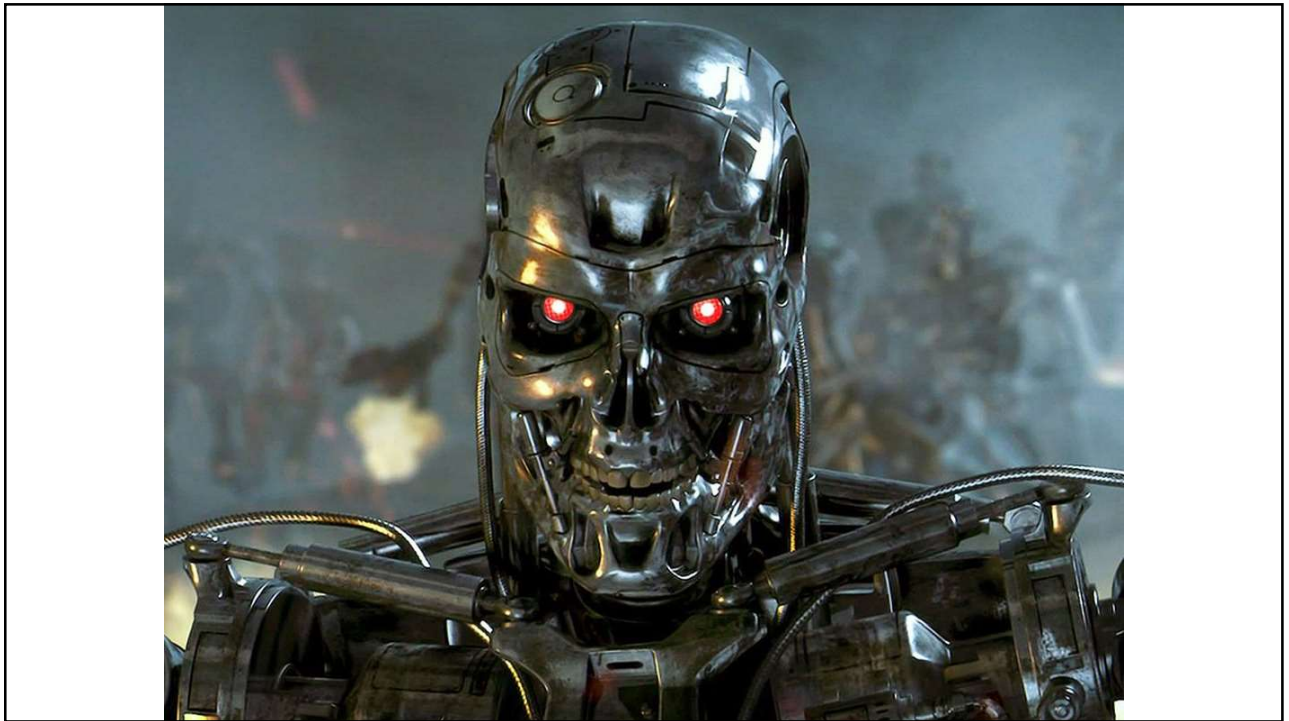
AI Law Practice

- Transactions
- Compliance
- Liability
- Investigations/incident response
- Governance (legal and ethical)

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Technology Examples

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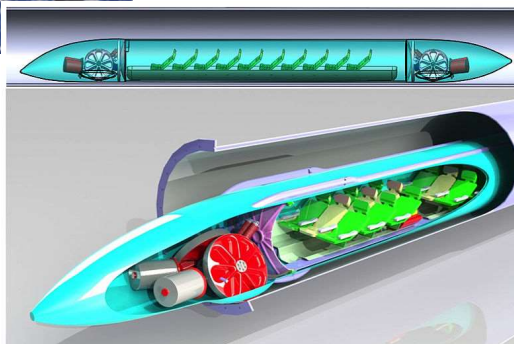
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Driverless Cars



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Future Modes of Transportation



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Drone Deliveries by Air



13

Drone Deliveries by Ground



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Service Robots



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Security Robot



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Warehouse Robots



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Automated Farming Equipment



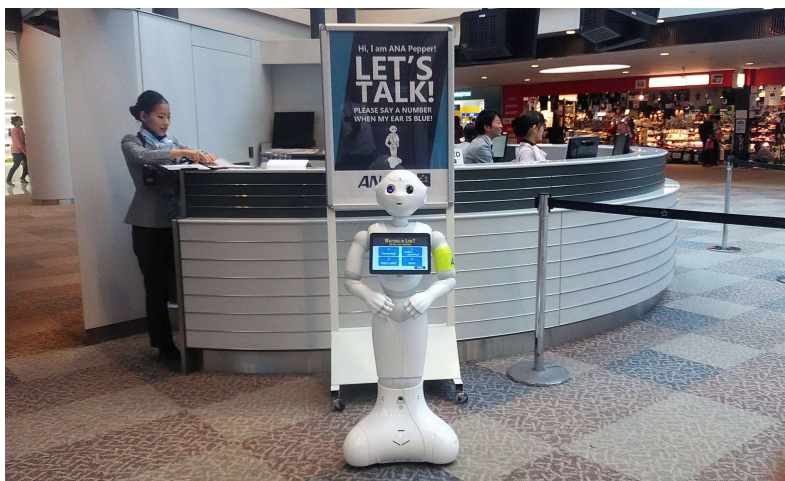
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Household Service Robots



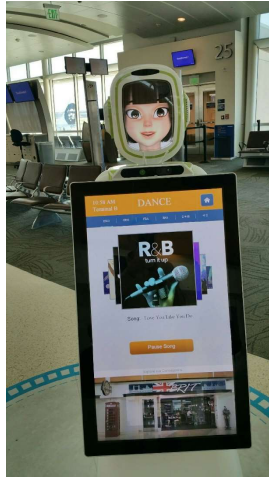
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Customer Service Robot



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San Jose Airport Robot



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Retail and Kiosk Robots



22

Automated Coffee Kiosk



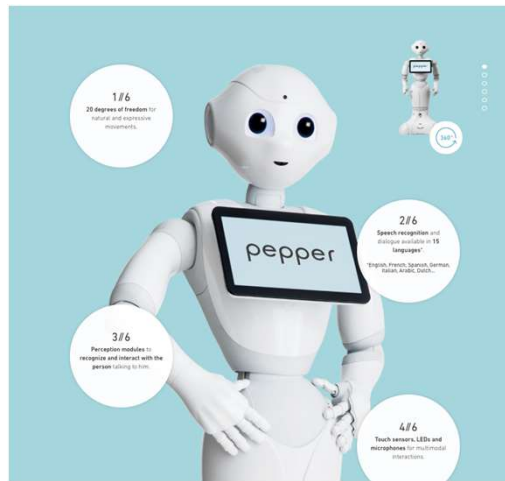
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Inventory Robot



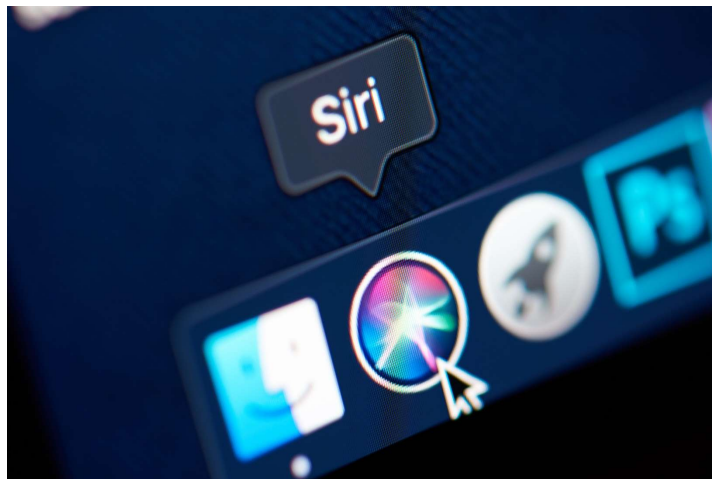
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Personal Robots



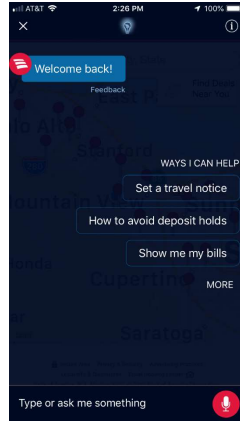
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Electronic Agents



26

Mobile Banking Agents



27

Automated Loan Applications and Evaluations



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Large Scale Artificial Intelligence



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Automated Trading Systems



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Authentication and Anti-Money Laundering

Home Historical Reporting Case Escalation Flow Create Case Edit Profile Invest			
2017-09-22			
Investigation	Number	Primary Rule	Analyst
Larson - Structuring	201600357	Low Chargebacks	Mike Cena
Account History		Draft SAR Narrative	
Date	Activity	Amount	This SAR is being filed to summarize suspicious activity by John Larson, account #12345678910. John Larson has been active in the account since April 2012. He is employed part-time at a company in Las Vegas. The account is structured to possibly circumvent federal reporting requirements. Transfers are followed by immediate wire transfers to Australia to a single beneficiary, Jennifer Larson, at an address located in Australia. Specifically the following transfers have been observed: transfers in (dates followed by amount): 09/15/17 \$9,960.00; 09/16/17 \$9,900.00; 09/17/17 \$9,700.00; 09/18/17 \$9,700.00; 09/18/17 \$10,000.00; 09/19/17 \$9,900.00. Total: \$59,160.00.
09-15-2017	Transfer from US Bank	\$9960	
09-16-2017	Transfer to AU Bank	\$9900	
09-17-2017	Transfer from US Bank	\$9700	
09-18-2017	Transfer to AU Bank	\$9700	
09-18-2017	Transfer from US Bank	\$10000	
09-19-2017	Transfer to AU Bank	\$9900	

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Robotic Process Automation



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Due Diligence and Investigations



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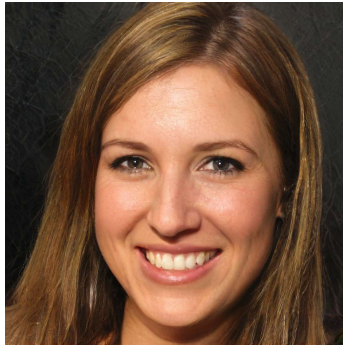
Retail and Financial

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did



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Generative Adversarial Networks



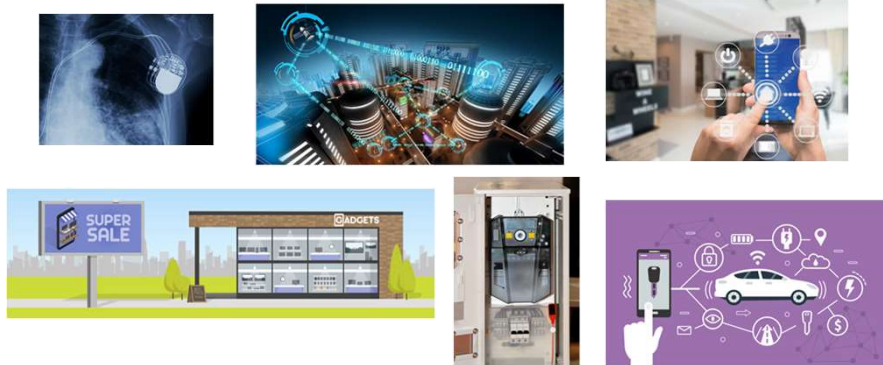
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Deepfakes



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Smart and Connected Devices



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Smart Scalpel/AI Solution



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Saving a Life



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Surgical Robots



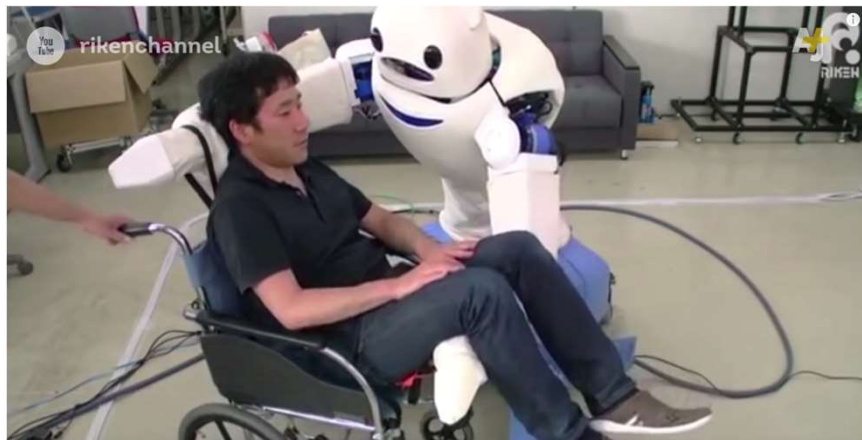
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Computer-Assisted Surgical Systems



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Nursing/Eldercare Robot



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Hospital Service Robots



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Telepresence Medical Robots



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Robotics and COVID-19



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Sanitization Robots



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AI in Medicine



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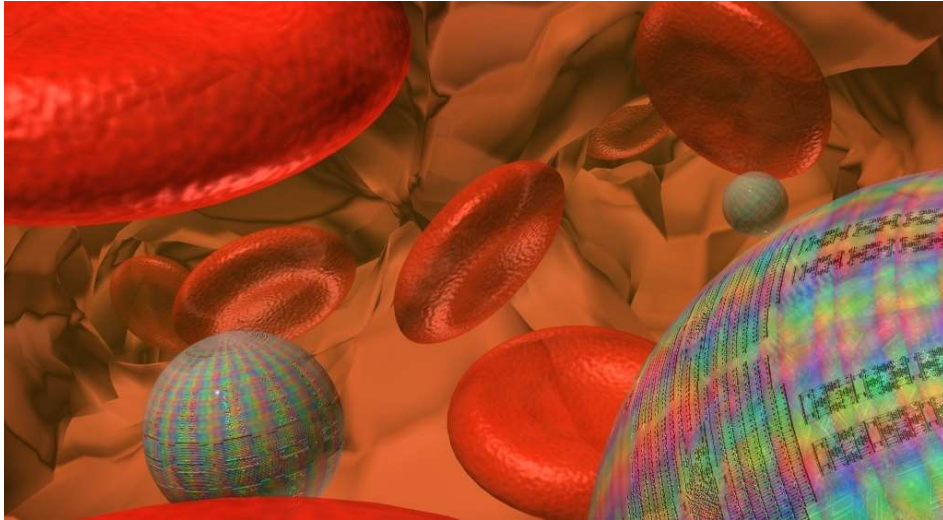
AI and COVID-19

- Tracking virus infections and predicting progression
- Detecting fever through machine learning
- Elder monitoring systems
- Treatment and vaccine discovery



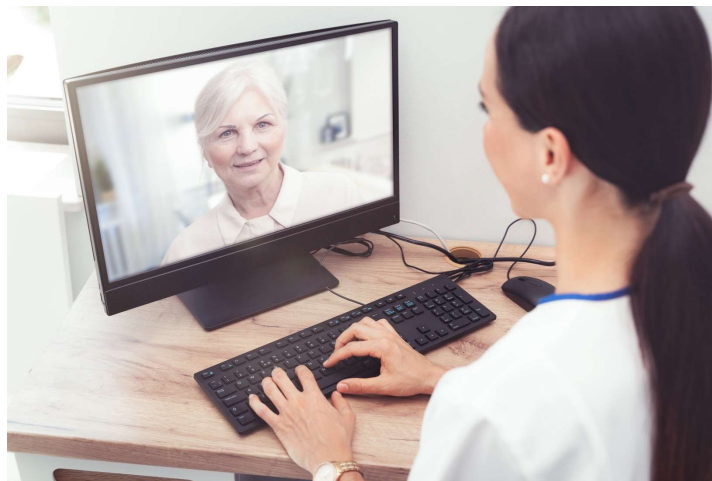
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FDA: Nanotechnology



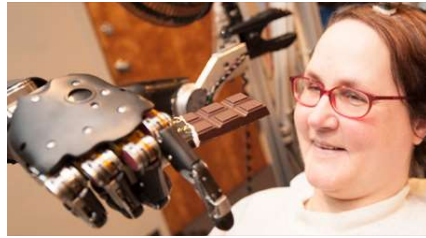
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The AI Doctor or Advisor?



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Thought-Controlled Prostheses



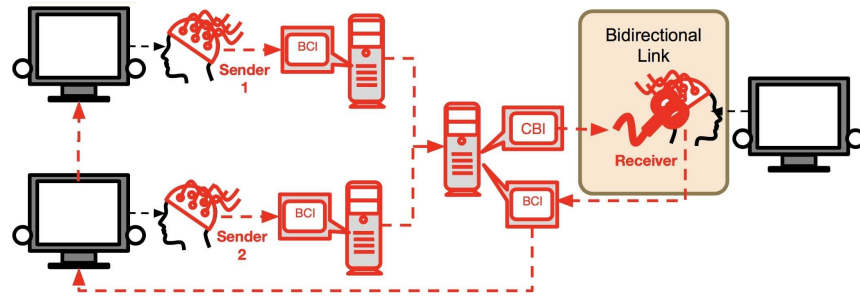
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Brain-Computer Interface



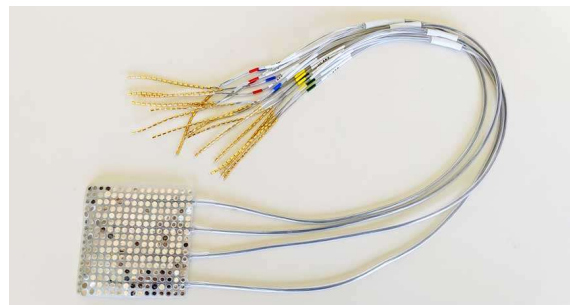
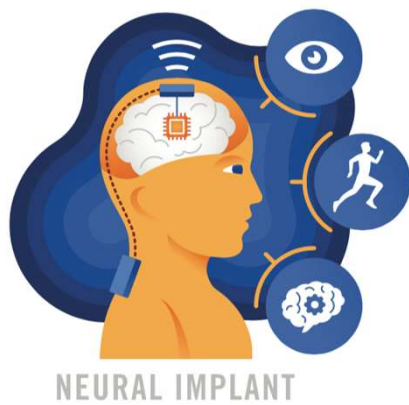
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Brain-to-Brain Collaboration



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Neural Devices

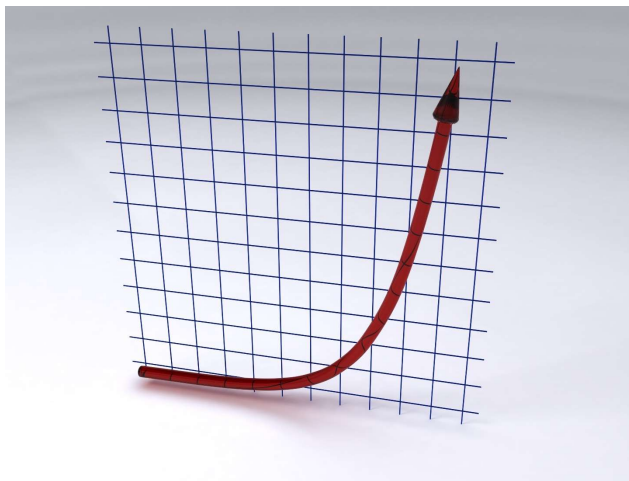


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Part of Larger Trends

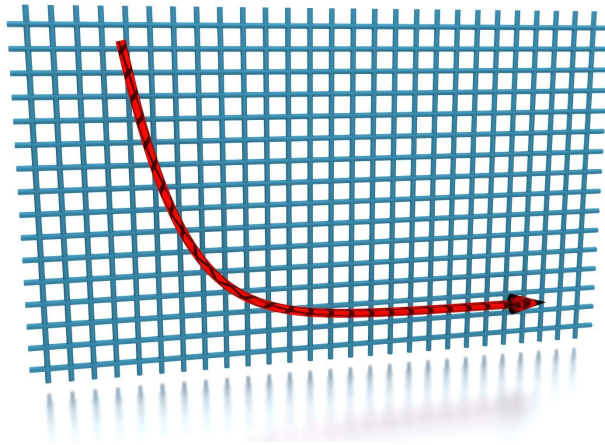
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Exponential Increases in Computing Power



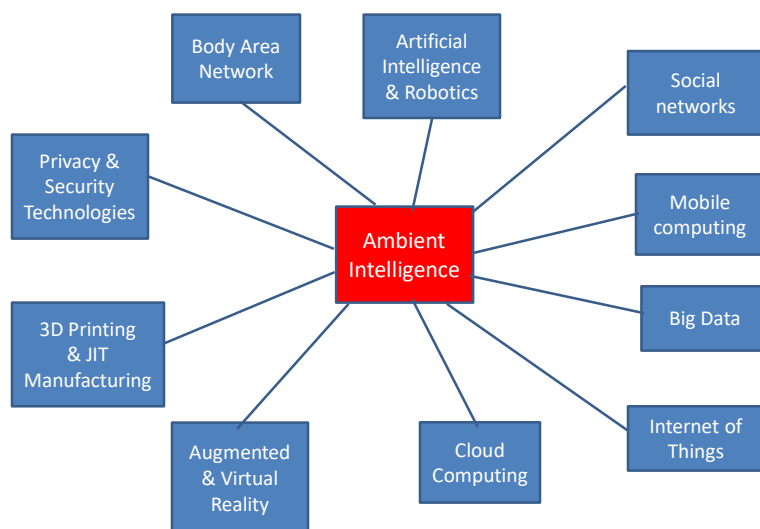
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While Prices are Falling

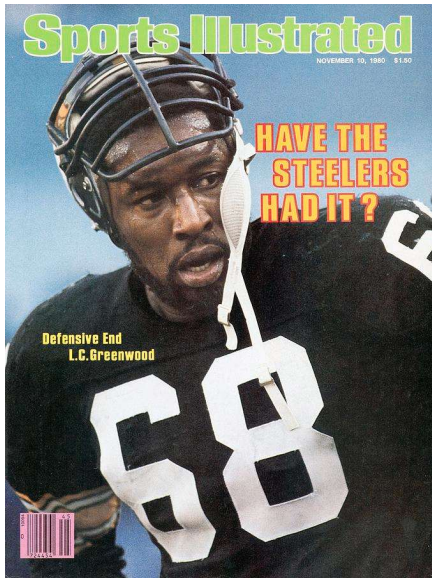


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The AI View of the World



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ELSI

- Ethical
- Legal
- Social implications

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AI and Robotics ELSI Issues What could go wrong?



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What Could Go Wrong?

- Accidents
- Malpractice
- Data breaches
- Nonpayment/non-delivery
- Breaking the law
- Misuse
- IP Infringement
- Bias
- Discrimination
- Fraud
- Election manipulation
- Job losses
- Social dislocation
- Authoritarianism

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Key Themes from the ABA AI National Institute

- Replacement of workers
- Standard of care/liability
- Human-AI interface
- Privacy and security
- Transparency
- Bias
- Autonomy
- Interdisciplinary
- Ethics
- Something bigger than ourselves

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63

[illegible]

FAA Part 107 Waivers/Certificates of Authorization: Drone Deliveries



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Small Drone Options

Fly under the Special Rule for Model Aircraft (Section 336)	Fly under the FAA's Small UAS Rule (Part 107)
<ul style="list-style-type: none"> • Fly for hobby or recreation ONLY • Register your model aircraft • Follow community-based safety guidelines and fly within the programming of a nationwide community-based organization • Fly a model aircraft under 55 lbs. unless certified by a community-based organization • Fly within visual line-of-sight • Never fly near other aircraft • Notify the airport and air traffic control tower prior to flying within 5 miles of an airport • Never fly near emergency response efforts 	<ul style="list-style-type: none"> • Fly for recreational OR commercial use • Register your drone • Get a Remote Pilot Certificate from the FAA • Fly a drone under 55 lbs. • Fly within visual-line-of-sight* • Don't fly near other aircraft or over people* • Don't fly in controlled airspace near airports without FAA permission* • Fly only during daylight or civil twilight, at or below 400 feet* <p>* These rules are subject to waiver.</p>

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Artificial Intelligence Video Interview Act

- Illinois HB 2557, Pub. Act 101-0260
- Covers Illinois employers
- Requires notice to job applicants of AI used to analyze a video interview and consider fitness
- Employers must provide an explanation of the technology and characteristics used
- Must obtain consent to use of AI
- Employers may not share videos except vendors
- Right of erasure w/i 30 days, including backups

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Bot Disclosure Law

- SB 1001, at B&P Code 17940-17943 (short), 9/6/18, effective 7/1/19
- It is unlawful to use a bot
 - To communicate online
 - Intent to mislead the other person about its “artificial identity”
 - To knowingly decide the person about the content
 - To incentivize a purchase of goods or services or influence a vote
- Safe harbor: A person using a bot discloses that it is a bot
 - Clear, conspicuous disclosure designed to inform

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Elections: Deceptive Audio or Visual Media

- AB 730 (2019) - Elections Code Section 20010
- 1/1/23 version: no superimposing images
- Until 1/1/23: No materially deceptive audio or visual media to injure reputation or deceive voters
- Safe harbor: use of a disclaimer

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General Data Protection Regulation

- Article 15: right of access to information about personal data collected
- Article 15 para. 1(h): right of a data subject to know about automated decision-making
- Recital 71: a “right of explanation”
- Article 22: Right not to be subject to a decision based solely on automated processing (right of human intervention)

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California Consumer Privacy Act of 2018

- AB 375, approved June 28, 2018, effective 1/1/2020
- Civil Code 1798.100-1798.198
- Who is covered? Larger businesses not already regulated by health or fin service laws) - \$25 M in revenue, PI on 50,000, or 50% or more revenue from the “sale” of PI.
- Who is protected? California “consumers”/residents (can be employees) while in Cal.
- What rights: Disclosures about collected information (collection, use, disclosure), right of erasure, opt out right from sale of PI (link from homepage)
- Broad PI definition
- Can’t discriminate against consumers

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Connected Device Law

- SB 327, AB 1906, Civil Code 1798.91.04, 9/28/18, effective 1/1/20
- A manufacturer of a connected device shall equip the device with “reasonable” security features that are:
 - Appropriate to the nature and function of the device
 - Appropriate to the info collected, contained, or transmitted
 - Designed to protect against unauthorized access, destruction, use, modification, or disclosure
- Any device or object connecting to the Internet, directly or indirectly, assigned an IP or Bluetooth address
- See also Or. Rev. Stat. 646.607

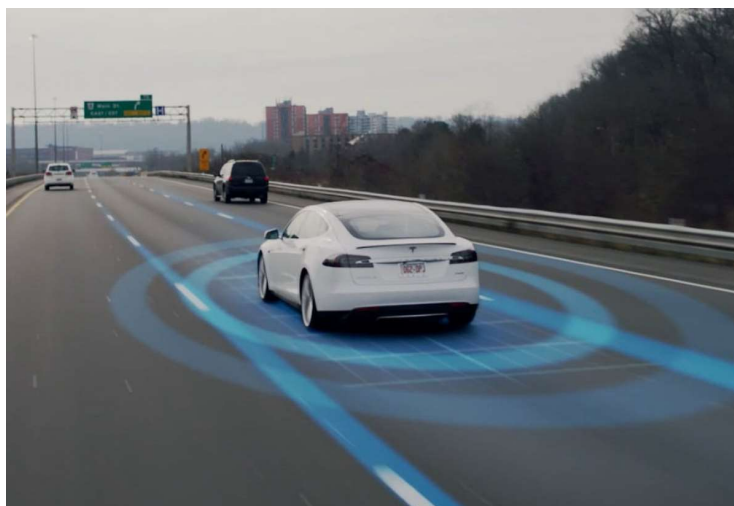
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Consumer Protection Laws

- FTC Act Section 5
- Unfair Competition Law, B&P Code 17200
- False Advertising Law, B&P Code 17500
- Cal. Consumer Legal Remedies Act, CC 1750-1784

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Tesla Autopilot System



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How Engineers See Tesla's Autopilot



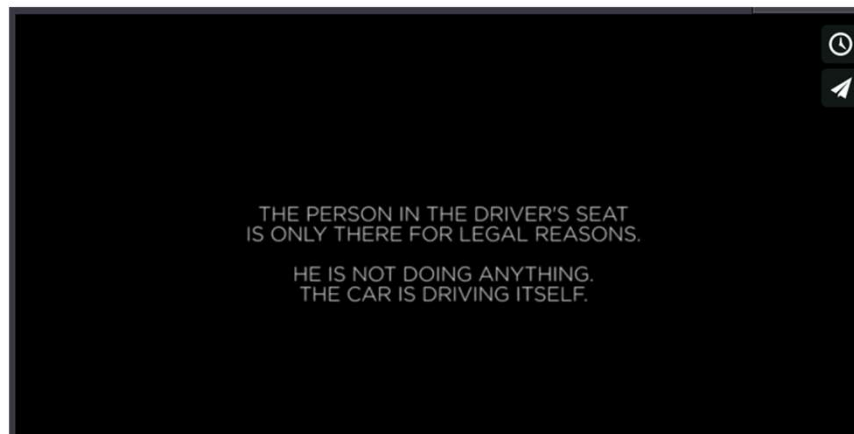
**National
Transportation
Safety Board**

Collision Between a Car Operating With
Automated Vehicle Control Systems
and a Tractor-Semitrailer Truck
Near Williston, Florida
May 7, 2016

longer obstructed. Autosteer automatically steers the car to keep it within its lane of travel. In short, TACC provides longitudinal control (acceleration and deceleration) and Autosteer provides lateral control (steering) of the car within the lane, making the Tesla Autopilot consistent with an SAE International (SAE) Level 2 automated vehicle system. (The SAE classification of automated

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How is Tesla's Autopilot System Sold?



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Result? Sheikh v. Tesla (Settled)

12		UNITED STATES DISTRICT COURT	
13		NORTHERN DISTRICT OF CALIFORNIA	
14		SAN JOSE DIVISION	
15	DEAN SHEIKH, JOHN KELNER, TOM	No. 5:17-cv-02193-BLF	
16	MILONE, DAURY LAMARCHE, DAN		
17	WHELAN, and MICHAEL VERDOLEN, on	SECOND AMENDED CLASS ACTION	
18	behalf of themselves and all others similarly	COMPLAINT FOR VIOLATION OF	
19	situated,	STATE CONSUMER FRAUD ACTS,	
20		FRAUD BY CONCEALMENT, AND	
21		UNJUST ENRICHMENT	
22	Plaintiffs,	<u>DEMAND FOR JURY TRIAL</u>	
23	v.		
24	TESLA, INC. d/b/a TESLA MOTORS, INC., a		
25	Delaware corporation,		
	Defendant.		

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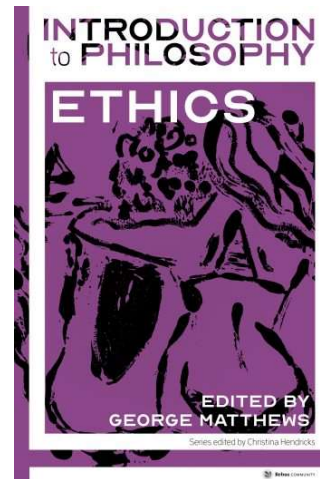
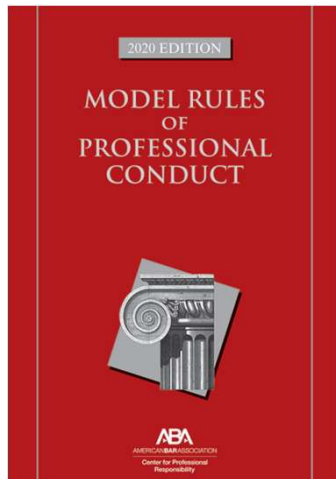
Mitigating Risk

**UNFAIR AND DECEPTIVE
TRADE PRACTICE CLAIMS
AGAINST MANUFACTURERS
OF AUTOMATED VEHICLES**

BY STEPHEN S. WU

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Ethics, Meet Ethics



79

Professional Ethics v. Moral Philosophy

- | | |
|---|---|
| <ul style="list-style-type: none">• Scope: tied to a profession• Code-based• Based on broad-based consensus principles• Once established, rules are binding• Rules established in the code• What to do? Read the rules.• Violations subject to discipline | <ul style="list-style-type: none">• Scope: general• No code• Fundamental disagreements on principles• Principles are not binding; it's a matter of right and wrong• No body of rules, but rather principles• What to do? Apply the principles.• Violations subject to condemnation or reputational loss |
|---|---|

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Principal Approaches to Ethics

- Deontological ethics (rules-based systems)
- Utilitarianism (maximizing utility, focusing only on consequences)
- Virtue ethics (patterning behavior on the virtuous person)
- Role of “thought” experiments (e.g., “trolley” problems)



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Legal Effects of “Ethical” Decisions



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Governance

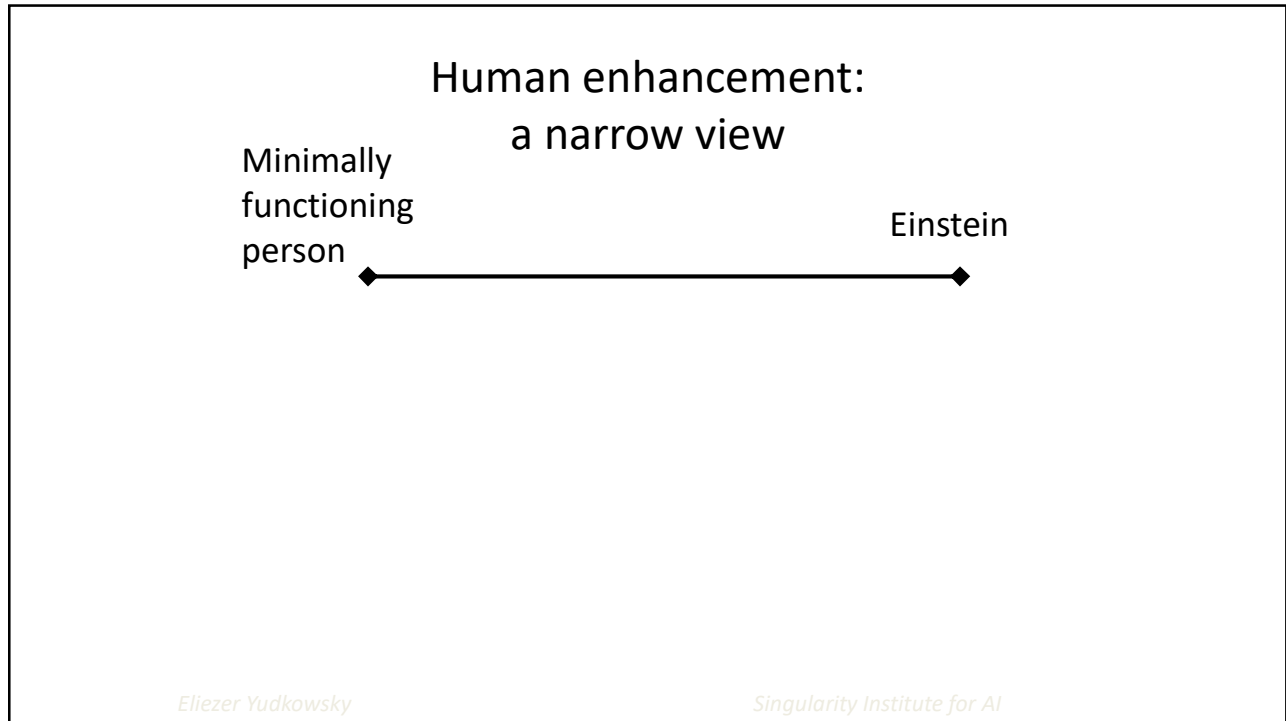
- Governance process
- Privacy and security policies
- AI and robotics governance touchpoints
 - Development
 - Offering
 - Procurement
 - Operation
 - Decommissioning

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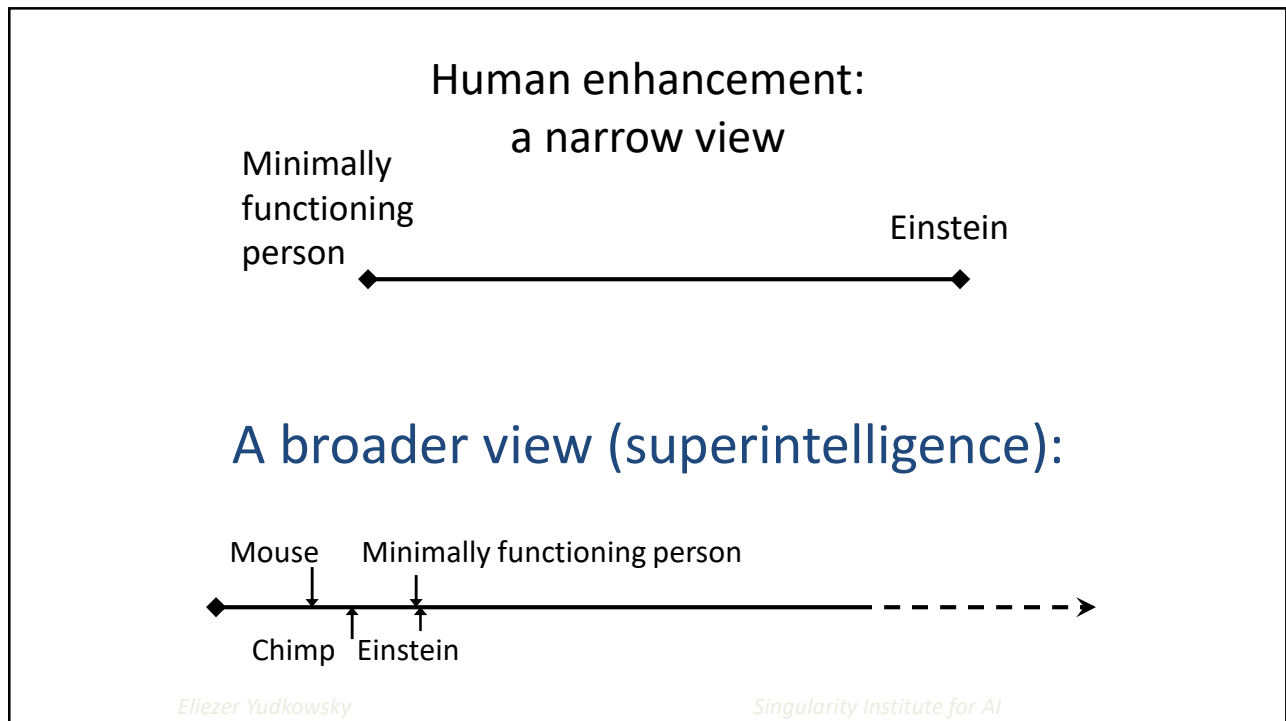
Examples of Governance Documents

- AI risk assessment
- AI impact assessment/statement
- Operational documents
 - Policies
 - Procedures
 - Guidelines
 - Technical standards
 - Training materials

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Superintelligence

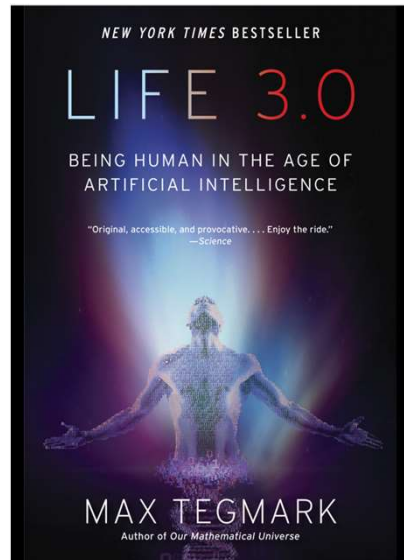


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Following Up

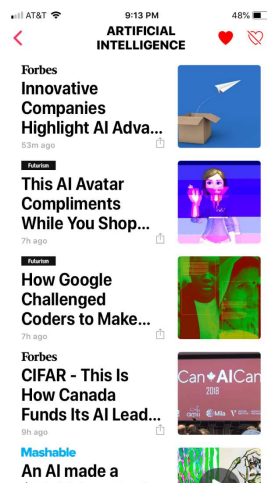
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Read These Books



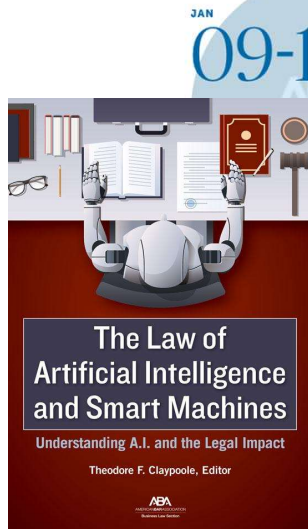
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Stay Informed



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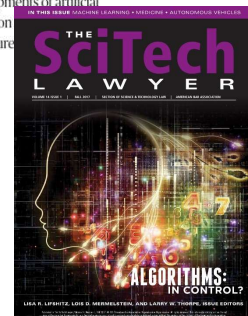
Publications and Programs



Artificial Intelligence and Robotics National Institute

Santa Clara University School of Law, 9 AM PST

Artificial intelligence is the electricity of the 21st century and its legal implications are vast and challenging. From hospitals to consumer finance, transportation to retail and human rights to privacy rights, your practice and your clients are affected every day. Get to grips with the dramatic legal developments of artificial intelligence and robotics and learn insider tips on your practice. As Yogi Berra once said: "The future used to be."



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ABA Committees



Science & Technology Law Section

The mission of the ABA Science & Technology Law Section is to provide leadership on emerging issues at the intersection of law, science, and technology; to promote sound policy and public understanding on such issues; and to enhance the professional development of its members.

SciTech – Information Security

SciTech – Artificial Intelligence and Robotics

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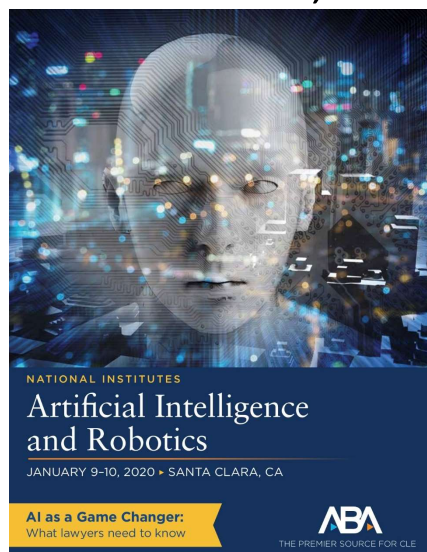
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Meetup on Robotics and AI Legal Issues



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ABA AI and Robotics National Institute October 12-13, 2020



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Values in the Law

Behavior to be Addressed	Legal Value Promoted
Unlawful	Compliance
Fraudulent	Trustworthiness
Concealment	Truth
Black box system	Transparency
Unfair	Fairness and Justice
Negligent	Reasonableness and security
Intrusive	Respectfulness and privacy
Authoritarian	Freedom and human rights

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Questions and Discussion

Stephen S. Wu
Silicon Valley Law Group
1 N. Market St.
Suite 200
San Jose, CA 95113
ssw@svlg.com
Tel: (408) 573-5737
Twitter: @StephenSWu, LinkedIn

www.airoboticslaw.com
www.svlg.com

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