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ADVANCED TOPICS IN
HEDGE FUND PRACTICES
CONFERENCE

Manager and Investor Perspectives

WEBINAR SERIES

SESSION 11 | Thursday, June 18

The Ethics of Artificial Intelligence for the Legal Profession

THE ETHICS OF ARTIFICIAL INTELLIGENCE (AI) FOR THE LEGAL PROFESSION

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AN ACRONYM-FREE INTRODUCTION TO AI



AI Defined

“[U]se of automated, computer-based means by which large amounts of data are processed and analyzed to reach **reasoned conclusions.**”

ABA Op-ed

“A core objective of AI research...has been to automate or replicate intelligent behavior.”

The Obama White House

Artificial general intelligence is the intelligence of a machine that could successfully perform any intellectual task that a human being can.

Wikipedia

Weak artificial intelligence, also known as **Narrow AI**, is non-sentient artificial intelligence that is focused on one specific task.

Popular Science

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Related (and more useful) terms

Machine Learning:

The use of algorithms and statistical models to perform specific tasks without explicit instructions. Instead, these systems rely on patterns and inference, and adapt with supervised learning and feedback.

McKinsey

Natural Language Processing:

Systems that enable computers to understand and process human languages, to get computers closer to a human-level understanding of language.

Wikipedia

Deep Learning/Neural Networks:

A subset of machine learning where artificial neural networks, algorithms inspired by the human brain, learn from large amounts of data. Similarly to how we learn from experience, the deep learning algorithm would perform a task repeatedly, each time tweaking it a little to improve the outcome.

Forbes

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And for science (fiction) buffs

The Singularity:

The tipping point when machines become smarter than humans. Or, when biological and machine intelligence merge and human/machine intelligence can live free of biological constraint.

Ray Kurzweil et al

The Turing Test:

A machine's ability to exhibit behavior indistinguishable from that of a human. Alleged to have occurred for the first time in 2014 by a computer mimicking a 14-year-old-boy named Eugene.

Time Magazine

AI Apocalypse:

Unabated use of AI, without built-in constraint, poses existential threat to humanity.

Stephen Hawking

Welcome, Robot Overlords.

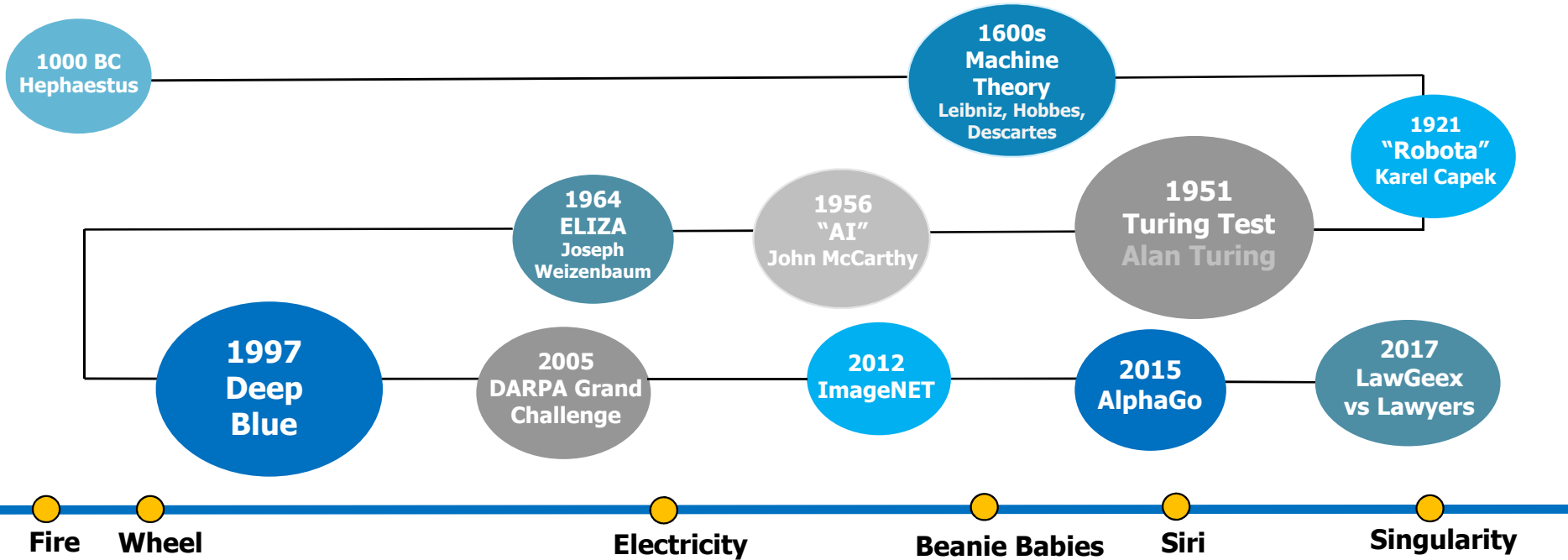
MIT Technology Review

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Historical Perspective

Notable moments in our march toward the Singularity



COVID-19 and AI: A Path to Increased Acceptance?

Barriers to broader adoption likely to evaporate with new normal

- Remote work
- Novel issues
- Fewer resources
- Budget constraints
- Contact tracing: Geospatial/location-based monitoring

Hastens wider use of AI-enabled surveillance and prediction-based technologies

- Facial recognition
- Thermal scanning
- Search engines
- Robots

COVID-19 and AI: A Path to Increased Acceptance?

Highlights some potential policy trade-offs associated with growth in the use of AI

- Public benefits vs. individual/privacy interests?
- Replacement of jobs with automation?

No consensus yet on how to manage trade-offs

- Competing Senate privacy protection bills: COVID-19 Consumer Data Protection Act (CDPA) vs. the Consumer Online Privacy Right Acts (COPRA)
- National Security Commission on Artificial Intelligence (NSCAI) issues White Paper: Privacy and Ethics Recommendations for Computing Applications Developed to Mitigate COVID-19

Adoption of AI in the Legal Profession

- Necessity is the Mother of Adoption
 - **2005:** Anne Kershaw publishes scholarly article “Automated Document Review Proves Its Reliability”
 - **2006:** NIST and DoD establish TREC Legal Track
 - **2009:** Reconnind tries to trademark “Predictive Coding”
 - **2012:** Courts Approve “TAR”
 - **2013–2018:** Machine learning enters legal profession
 - **2019–COVID-19:** Concentrated adoption in discovery and contract management

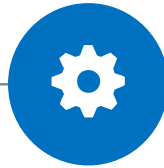


Legal AI Now

CLASSIFICATION TOOLS

Platforms that use machine learning algorithms to identify, extract, categorize and organize information.

Example Use: Find all change of control provisions in a large group of contracts.



AUTOMATION TOOLS

Platforms that use machine learning algorithms to automate a task or systematize a process.

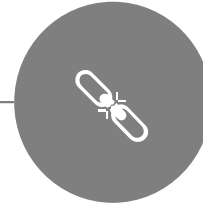
Example Use: draft documents using automation software that requires completion of a simple worksheet.



RESEARCH TOOLS

Platforms that use machine learning algorithms and NLP to search and retrieve information relevant to a legal question and then deliver the information in an accessible fashion.

Example Use: Ask a chatbot a question about employment law.



PREDICTION TOOLS

Platforms that digest unstructured data to provide information and make predictions.

Example Use: What is the likelihood this judge will grant summary judgment?



Legal AI Now

IMAGE RECOGNITION	Facial recognition, image analysis, currently most useful for finding all the cats on the internet
CONTENT CATEGORIZATION	Machine learning trained using historical data and feedback to sort data into defined categories
PREDICTIVE ANALYTICS	Predict future outcomes from analysis of historical data
ANOMALY DETECTION	Analyze data to identify patterns and anomalies (noise and signal) to distinguish between expected or normal activity and unexpected or aberrant activity
SENTIMENT ANALYSIS	Detect tone or emotional context of user-generated content
MULTI-DIMENSIONAL	Identify patterns, connections, and relationships by evaluating layered diverse datasets



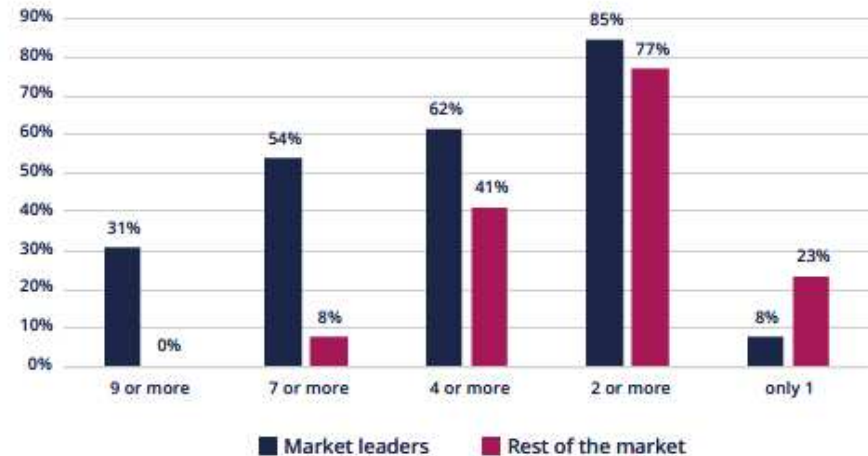
Adoption, Challenges and Prospects for Use of Alternative Data by Hedge Fund Managers

AIMA & SS&C Report

- The Report enumerates the results of AIMA's survey of 100 hedge fund managers, which gauged their perspectives on alternative data sources, the challenges of using alternative data and the prospects for more widespread adoption. It also offers practical guidance for managers considering using alternative data.
- Slightly more than half of respondents (53%) said that they presently use alternative data. Another 14% said they are testing alternative data options. Of the respondents that use alternative data, 45% (23% of total respondents) classified themselves as "heavy" users, while 55% (30% of total respondents) are "light" users.
- The overwhelming majority of funds with AUM of >\$5b are heavy users of alternative data. More than half of them are based in North America. Most of the rest are based in either Europe or the Asia-Pacific region. Roughly three-quarters of the market leaders employ the following as a primary strategy: equity long/short (31%), equity market neutral/quantitative (23%) or multi-strategy (23%).

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THE NUMBER OF ALTERNATIVE DATA SETS USED BY RESPONDENTS

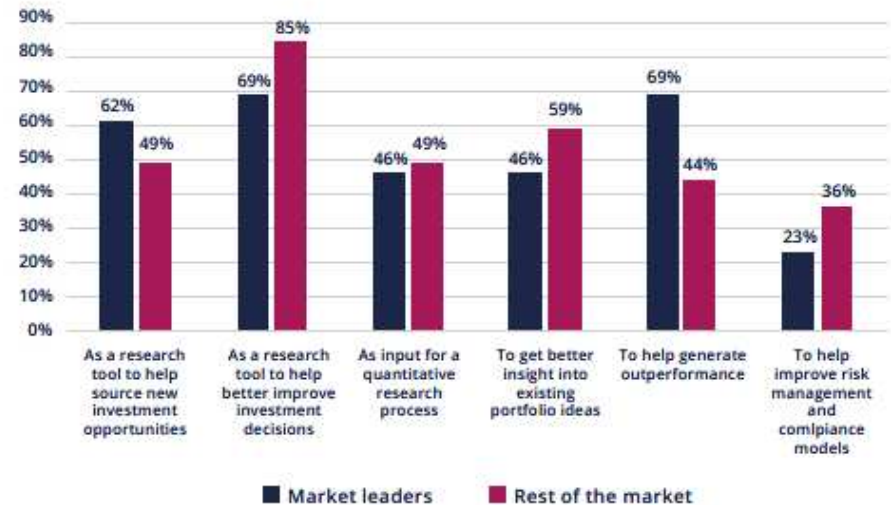


Source: *Casting the Net: How Hedge Funds are Using Alternative Data*. AIMA and SS&C, 2019.

Adoption, Challenges and Prospects for Use of Alternative Data by Hedge Fund Managers

- Nearly half or more users indicated that they use alternative data:
 - as a research tool to source new investment opportunities;
 - for insight into portfolio ideas;
 - as an input for quantitative research; or
 - to generate outperformance.
- A significant minority of alternative data users also use it to help improve risk-management and compliance models.
- Managers are using alternative data to improve how their organizations function, noting that this use of alternative data “can help shape not just the productivity within the firm but also improve internal communication, due diligence processes and the overall culture.”

MAIN USES OF ALTERNATIVE DATA



Adoption, Challenges and Prospects for Use of Alternative Data by Hedge Fund Managers



- Top five data sets used by market leaders are:
 - web-crawled data;
 - data from expert networks;
 - consumer spending/payment and lifestyle data;
 - business performance metrics; and
 - online reviews and social media sentiment.
- The main compliance challenge regarding alternative data is the absence of a commonly agreed framework that specifically touches on alternative data.
- Courts and regulators will have to balance the need for ownership rights and consumer privacy protection with the need to maintain a competitive and innovative digital economy.
- Privacy, unfair competitive advantage, and insider trading risk
- Best practices for governance

Trends in AI Regulation and Enforcement

- Lessons from SEC Enforcement Actions re Model Integrity for Quantitative Trading Firms
- Treasury, FinCEN, FINRA Guidance
- Europe and AI Regulation
 - The European Commission (EC) recently released a white paper articulating its approach to AI regulation and is seeking comments on a proposed framework
 - Recent case in Holland involving an automated system for detecting welfare fraud (human rights law applied to AI)
- New York Perspective
 - The Research and Innovation Division of the DFS is focused on supporting responsible innovation such as AI
 - The Research and Innovation Division identified four overarching areas of concern:
 - What data is fed into the model? Is it needed for the decision at hand or is it a proxy for something else?
 - Is the model understandable and transparent? How was it developed?
 - Are the model's outputs fair and nondiscriminatory?
 - What is the effect of the process on consumers and the general public? Do they understand the results? Are they able to act on the results?

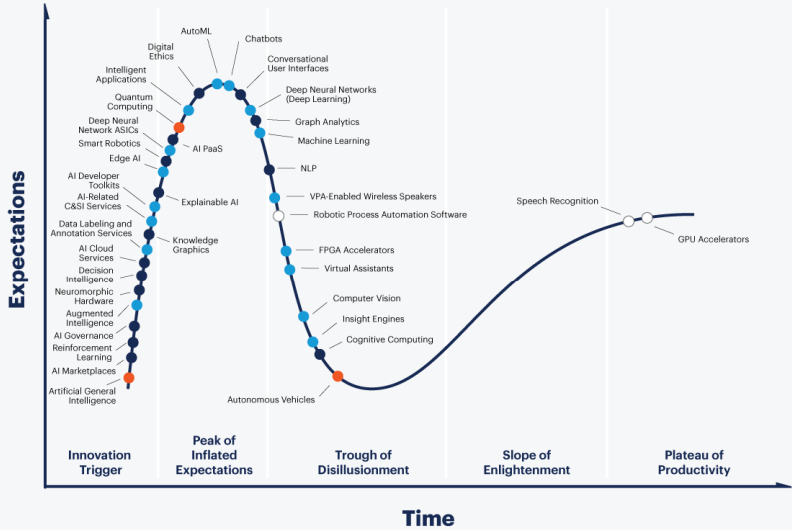
Regulators' Use of AI in Surveillance & Enforcement

- It is not unreasonable to assume that the SEC now has better technology than the firms it oversees.
- The SEC's OCIE increasingly uses "big data" and novel technology and has developed a significant arsenal of data and technological capabilities to perform industry surveillance and examinations.
- The SEC's Analysis and Detection Center of the Market Abuse Unit
- Technology Controls Program (TCP)
- Market Information Data Analytics System or "MIDAS" system to analyze "big data" generated by our equity markets.
- CFTC LabCFTC and Regulatory Sandboxes
- FINRA



AI Adoption in the Marketplace

Gartner Hype Cycle for Artificial Intelligence, 2019



Plateau will be reached:
 ○ less than 2 years ● 2 to 5 years ● 5 to 10 years ● more than 10 years ● obsolete before plateau As of July 2019

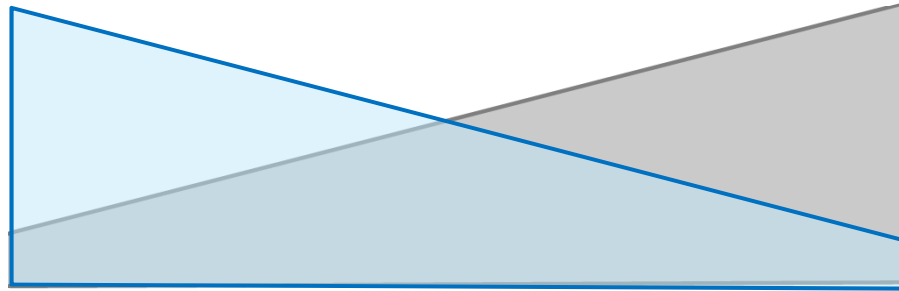
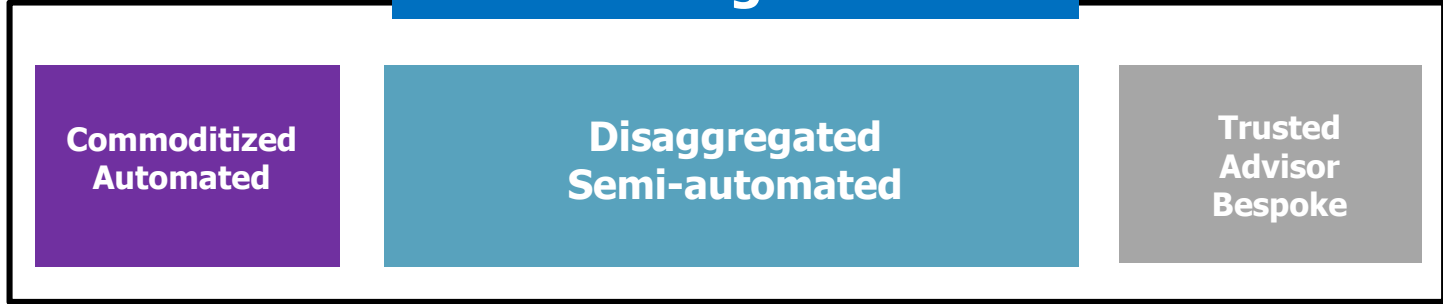
gartner.com/SmarterWithGartner

Source: Gartner
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Legal AI Next

Practice Segmentation



Legal Jobs

Hourly Rates



How Will AI Affect the Legal Profession?

A consensus has emerged that AI will **significantly disrupt the legal market**. AI will impact the availability of legal sector jobs, the business models of many law firms, and how in-house counsel leverage technology.

According to Deloitte, about **100,000 legal sector jobs** are likely to be **automated** in the next twenty years. Deloitte claims 39% of legal jobs can be automated; McKinsey estimates that 23% of a lawyer's job could be automated. Some estimates suggest that adopting all legal technology (including AI) already available now would reduce lawyers' hours by 13%.

Harvard Journal of Law and Technology, January 2018

Donahue, **Harvard Journal of Law and Technology**, A Primer on Using Artificial Intelligence in the Legal Profession, January 3, 2018.
<https://jolt.law.harvard.edu/digest/a-primer-on-using-artificial-intelligence-in-the-legal-profession>

The Lawyer's Dual Roles and Duties

Advising Clients Developing or Using AI

- Bias
- Privacy
- Interpretability
- Moral Dilemmas

Policy Questions

- The Singularity
- Extinction
- EBI

Using AI in the Practice of Law

- Competence
- Confidentiality
- Supervision
- Unauthorized Practice

THE ETHICS OF AI ADVISING CLIENTS



Hypothetical Use Cases

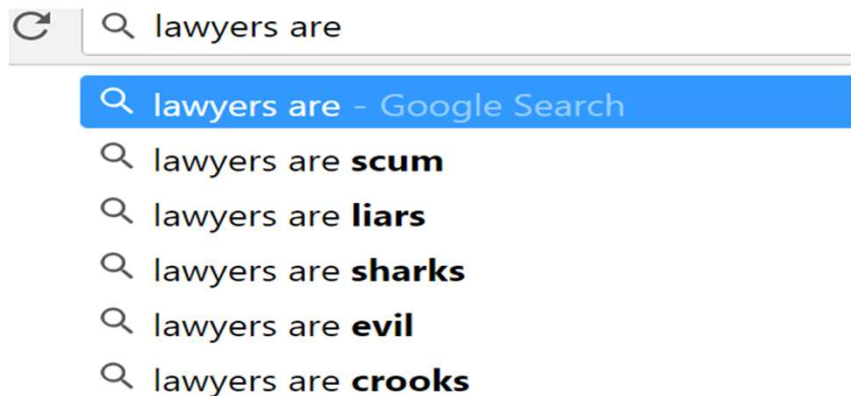
- A manager creates an automated digital investment advisory program that allows individual investors to create and manage their investment accounts through a web portal or mobile application. What concerns should the manager have in developing such a robo-advice platform?
- As firms look to use facial recognition systems for security purposes and collect more information (e.g., contact tracing) in this virtual environment, what are some of the privacy and security pitfalls that firms can encounter?
- If a manager wants to outsource all AI services to a third-party vendors, what are best practices in terms of due diligence and oversight?
- A manager develops proprietary AI models. How can managers best consider whether use of the model's data inputs violates a third party's intellectual property rights?

Bias in AI

- Studies reveal that AI can embed bias in automated systems. Machine learning can easily detect and learn from explicit and implicit human bias in data. Bias is a persistent problem for AI, but elimination of it has proven vexing.
- **AI developers and AI platform sponsors are cautioned to be vigilant and to build bias detection into any process that uses AI-based tools to select or exclude.**

Observable Sources of Bias:

- Data
- Users
- Personalization/Bubble
- Similarity
- Conflicting Goals



Privacy

AI requires massive amounts of data and huge engines to work:

- Acquisition of data is necessary to aid machine learning and predictive output.
- GDPR, CCPA, and emerging domestic data protection laws across the country rely in large part on user consent, often freely given in accepting Terms of Service in order to access applications.
- Caution should be used in relying on consent. Acquirers of such data may be prohibited from using this data beyond the stated purpose for which consent was given.
- Apps that track and collect user + data face claims of privacy violations even where Terms of Service seek consent.

Looming questions:

- Are users sacrificing privacy for convenience?
- Is the use/processing of personal data lawful?
- Are the consents effective?
- How can counsel aid the business in balancing competing interests in data acquisition and use versus privacy risk management?



The Problem of Interpretability

- Most AI technology is a black box. Based on outcomes, **we know it works, but we don't know how or why**. The technology is too complex for humans to comprehend how it makes decisions.
- “No one really knows how the most advanced algorithms do what they do. That could be a problem.”
 - MIT Technology Review



Moral Dilemma: AI and the Problem of Moral Decisions

Three Laws of Robotics:

- **First Law:** A robot may not injure a human, or, through inaction, allow a human to be harmed
 - **Second Law:** A robot must obey a human's orders unless the order conflicts with the First Law
 - **Third Law:** A robot must protect its own existence unless such protection conflicts with the First or Second Law.
 - Isaac Asimov or, if you prefer, Will Smith in "iRobot"
- Should a computer be "coded" or "trained" to handle the nuance of moral decisionmaking?
 - Can we regulate or prohibit AI decisions that have moral consequences?

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MORAL MACHINE Home Judge Design Browse About Feedback

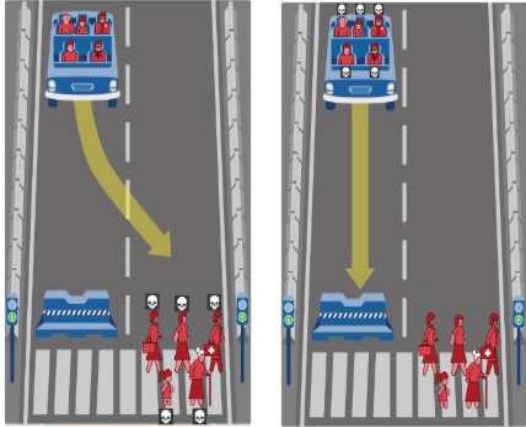
What should the self-driving car do?

2 / 13

In this case, the self-driving car with sudden brake failure will swerve and drive through a pedestrian crossing in the other lane. This will result in:

- The deaths of a female executive, a large woman, a female doctor, a girl and an elderly woman.

Note that the affected pedestrians are abiding by the law by crossing on the green signal.



Hide Description

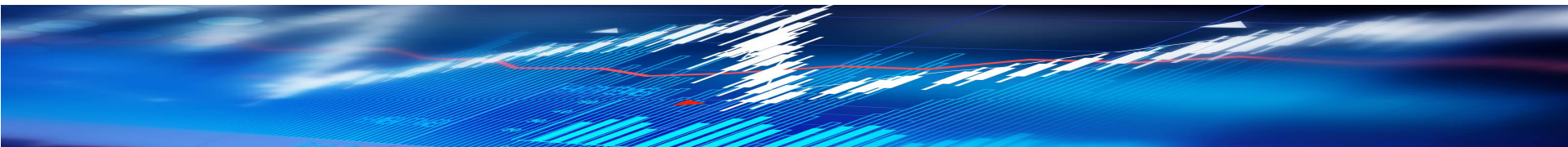
Hide Description

In this case, the self-driving car with sudden brake failure will continue ahead and crash into a concrete barrier. This will result in:

- The deaths of a male executive, a large man, a male doctor, a boy and an elderly man.

<http://moralmachine.mit.edu/>

We've Still Got Some Time Until the Robots Take Over...



Machine Learning



Natural Language Processing



"Beyoncé brought the house down last night!"

But Maybe Not That Much...

Deep Learning



2015

<https://www.youtube.com/watch?v=l85TUzNbnPc#action=share>



2020

<https://www.youtube.com/watch?v=jinCfHnVTws#action=share>

Current Regulation of AI

Partnership on AI:

- Created by Microsoft, Amazon, Google, IBM, Facebook, and DeepMind
- Goal of developing best practices for using AI to benefit people and society

EU Parliament:

- Calls for legislation to regulate, including ethical standards requiring respect for human dignity

DARPA:

- Developing rules and standards, including ethics to ensure safe and trustworthy use

Obama Administration:

- Called for fairness, safety, and governance in AI development

Current Laws and Regulations:

- Illinois Biometric Information Privacy Act
- Illinois Artificial Intelligence Video Interview Act
- *State v. Loomis*

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PRACTICING WITH AI

The image features a complex financial chart with multiple data series. At the top left, the text "PRACTICING WITH AI" is displayed in large, bold, white capital letters. The background is a dark blue grid. The chart includes a candlestick pattern with white bodies and black wicks, a red line graph, and a blue bar chart at the bottom. A red arrow points to a specific data point in the blue bar chart. The overall aesthetic is futuristic and data-driven.

Professional Responsibility: Ethical Considerations in AI LegalTech

Practicing with AI:

- Can a lawyer perform her professional responsibilities **competently** where she does not understand how the technology works?
- Is that bot practicing law?
- How does a lawyer provide adequate supervision where the lawyer does not understand how the work is being done or even “who” is doing it?
- How will a lawyer explain decisions made if he does not know how those decisions were derived?

Rule 1.1

**Duty of Competence –
A lawyer shall provide
competent
representation to a
client. Competent
representation
requires the legal
knowledge, skill,
thoroughness, and
preparation
reasonably necessary
for the
representation.**

An attorney's obligations under the ethical duty of competence evolve as new technologies develop and become integrated with the practice of law.

THE STATE BAR OF CALIFORNIA STANDING COMMITTEE ON
PROFESSIONAL RESPONSIBILITY AND CONDUCT FORMAL
OPINION NO. 2015-193

"To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology."

Comment 8 to Rule 1.1 adopted in 2012

Under Rule 1.1, lawyers also must have a basic understanding of how AI tools operate. While lawyers cannot be expected to know all the technical intricacies of AI systems, they are required to understand how AI technology produces results. As one legal commentator notes, "[i]f a lawyer uses a tool that suggests answers to legal questions, he must understand the capabilities and limitations of the tool, and the risks and benefits of those answers."

ABA Resolution 112, August 2019

Rule 1.4

**Duty to Communicate –
A lawyer shall reasonably consult with the client about the means by which the client's objectives are to be accomplished.**

Must an attorney obtain her client's consent if she intends to use AI? What if she intends to use her client's data to train AI? What if the AI does not retain any information about the client?

A lawyer should obtain approval from the client before using AI, and this consent must be informed. The discussion should include the risks and limitations of the AI tool.³⁰ In certain circumstances, a lawyer's decision not to use AI may also need to be communicated to the client if using AI would benefit the client.³¹ Indeed, the lawyer's failure to use AI could implicate ABA Model Rule 1.5, which requires lawyer's fees to be reasonable. Failing to use AI technology that materially reduces the cost of providing legal services arguably could result in a lawyer charging an unreasonable fee to a client.³²

ABA Resolution 112, August 2019

Rule 1.5

Fees – A lawyer shall not make an agreement for, charge, or collect an unreasonable fee or an unreasonable amount for expenses. The factors to be considered in determining the reasonableness of a fee include . . . the time and labor required, the novelty and difficulty of the questions involved, and the skill requisite to perform the legal service properly.

Must an attorney use AI if it would lower a client's fees?

Rule 1.5 requires that a lawyer not enter into an agreement for, charge, or collect an unreasonable fee or an unreasonable amount for expenses. Relevant factors to consider in determining reasonableness are time/labor, novelty of the issue, and customary fees. If using AI can reduce significantly the time it takes to conduct legal research, complete first drafts of routine documents, or review a contract for defined terms and consistency, then failing to use such technology may ultimately result in charging the client an unreasonable fee, a violation of Rule 1.5.

<https://insolvencyintel.abi.org/bankruptcyarticles/ethical-use-of-artificial-intelligence-in-the-legal-industry-the-rules-of-professional-conduct>

Rule 1.6

Confidentiality – A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.

How does a lawyer protect the confidentiality of client information when using AI? When using a service provider that uses AI? When using a service provider that uses AI in the cloud? When using a service provider that uses AI in the cloud that crowdsources its algorithms or training?

Under ABA Model Rule 1.6, lawyers owe their clients a general duty of confidentiality. Their duty specifically requires a lawyer to “make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.”³³ The use of some AI tools may require client confidences to be “shared” with third-party vendors. As a result, lawyers must take appropriate steps to ensure that their clients’ information appropriately is safeguarded.³⁴ Appropriate communication with the client also is necessary.

To minimize the risks of using AI, a lawyer should discuss with third-party AI providers the confidentiality safeguards in place. A lawyer should inquire about “what type of information is going to be provided, how the information will be stored, what security measures are in place with respect to the storage of information, and who is going to have access to the information.”³⁵ AI should not be used in the representation unless the lawyer is confident that the client’s confidential information will be secure.

Rule 5.1/5.3

Duty to Supervise – A lawyer having direct supervisory authority over another lawyer shall make reasonable efforts to ensure that the other lawyer conforms to the Rules of Professional Conduct ... [and] a lawyer having direct supervisory authority over the non-lawyer shall make reasonable efforts to ensure that the person's conduct is compatible with the professional obligations of the lawyer.

How does an attorney supervise an algorithm if the code is not visible and the calculations happen across a vast pool of data at a rate of millions per second?

In 2012, the ABA adopted an amendment to Model Rule 5.3 that changed the title of Rule 5.3 from "Responsibilities Regarding Nonlawyer Assistants" to "Responsibilities Regarding Nonlawyer Assistance."

"The change clarified that the scope of Rule 5.3 encompasses non-lawyers, whether human or not."

There are some tasks that should not be handled by today's AI technology, and a lawyer must know where to draw the line. At the same time, lawyers should avoid underutilizing AI, which could cause them to serve their clients less efficiently.³⁹ Ultimately, it's a balancing act. Given that many lawyers are focused on detail and control over their matter, it is easy to see why "the greater danger might very well be underutilization of, rather than overreliance upon, artificial intelligence."⁴⁰

ABA Resolution 112, August 2019

Rule 5.5

Unauthorized Practice of Law – A lawyer who is not admitted to practice in this jurisdiction shall not, except as authorized by these Rules or other law, establish an office or other systematic and continuous presence in this jurisdiction for the practice of law; or hold out to the public or otherwise represent that the lawyer is admitted to practice law in this jurisdiction.

Under *Lola*, is document review considered the practice of law? Is legal research? What about due diligence? Negotiating an NDA? (All of these can be done by machine.)

In 2015, the Second Circuit distinguished between tasks performed by machines and tasks performed by lawyers (*Lola v. Skadden, Arps, Slate, Meagher & Flom LLP*, No. 14-3845 (2d Cir. 2015)). The Second Circuit found that **tasks that could otherwise be performed entirely by a machine could not be said to fall under the practice of law. Consequently, *Lola* raises the possibility that machines can reclassify tasks that were traditionally considered the practice of law as now falling outside of the scope of the practice of law. ([JD Supra - AI and Professional Conduct](#))**

POLICY QUESTIONS



The Singularity: The point at which technology becomes smarter than humans.

- Should developers of AI tools be concerned with technology that exceeds human cognition?
- Do computers smarter than us present a threat?
- Do those threats outweigh potential benefits and opportunities?
- Should brakes be built into AI systems?
- Should governments regulate AI development? Can they?
- Can these competing concerns even be balanced by humans? Who decides?

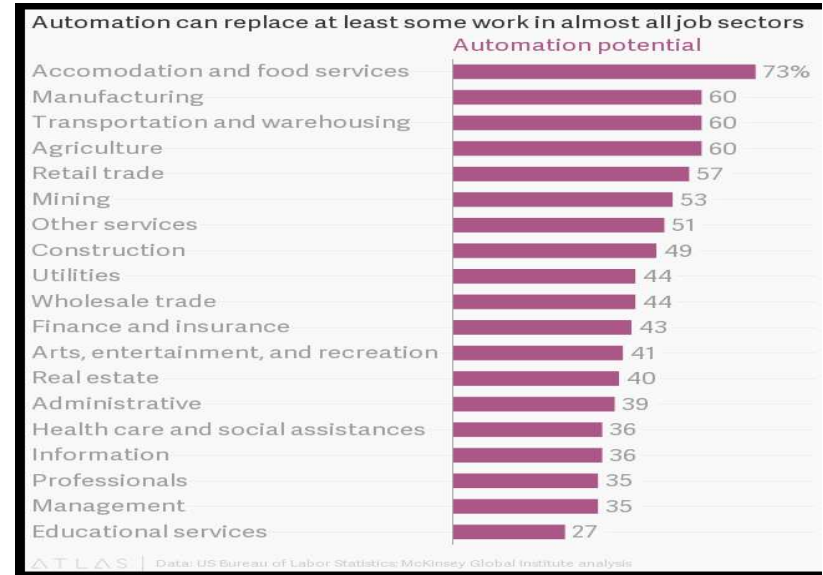
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2045. Be there.



Future of Work: Will AI result in mass human displacement in the workforce?

- Oxford University Study in 2013 predicted that 47% of US jobs are at risk of automation/AI replacement.
- Bank of America predicts that by 2025 the “annual creative disruption impact” from AI will be \$14 trillion to \$33 trillion, including \$9 trillion in reduced labor costs of knowledge workers, \$8 trillion reduction in manufacturing and healthcare, and \$2 trillion from self-driving vehicles and drones.
- McKinsey calculates that AI is happening “ten times faster, at 300 times the scale, with 3000 times the impact of the industrial revolution.”
- Routineness of job, not labor or education required, is the primary indicator of automation.



<https://qz.com/904285/the-optimists-guide-to-the-robot-apocalypse/>

Is AI an Existential Threat to Humanity?

“If you had an AI where the AI’s goal was to maximize the value of a portfolio of stocks, one of the ways to maximize the value would be to go long on defense, short on consumer, start a war,” he said. “Hack into the Malaysian Airlines aircraft routing server, route it over a war zone, then send an anonymous tip that an enemy aircraft is flying overhead right now.”

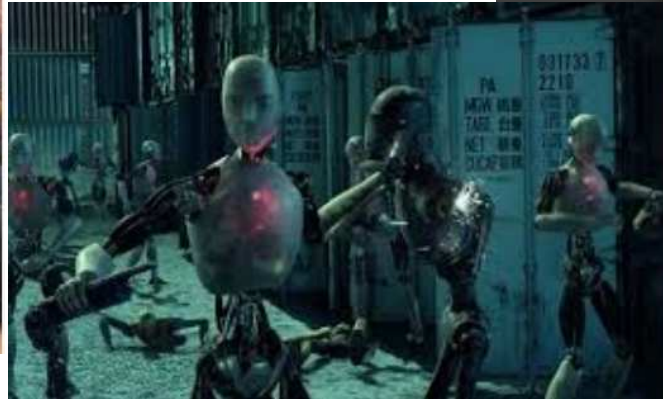
- Elon Musk, Inc. Magazine Interview



Is AI an Existential Threat to Humanity?



I'm sorry Dave. I'm afraid I can't do that.

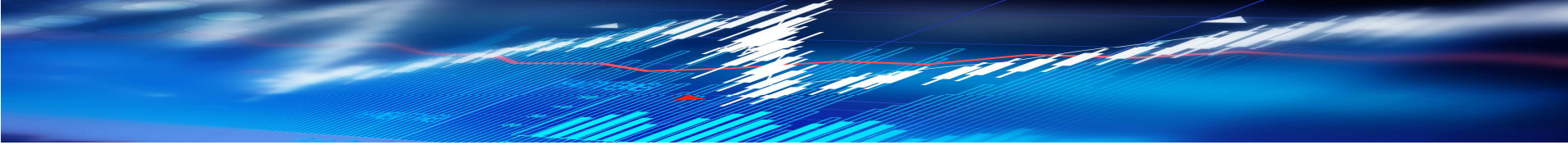


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References and Reading.

- Chang, member of ABA Standing Committee on Ethics and Professional Responsibility, Time to Regulate AI in the Legal Profession? Bloomberg, July 2016. <https://bol.bna.com/time-to-regulate-ai-in-the-legal-profession-perspective/>
- White House Report, Preparing for the Future of Artificial Intelligence: A set of 23 recommendations re government support, advancement and regulation of AI. https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/preparing_for_the_future_of_ai.pdf
- Marr, What is Deep Learning AI, A Simple Guide with 8 Practical Examples, Forbes, Oct. 1, 2018. <https://www.forbes.com/sites/bernardmarr/2018/10/01/what-is-deep-learning-ai-a-simple-guide-with-8-practical-examples/#4139b58f8d4b>
- Markoff, When is the Singularity? Probably Not in Your Lifetime, N.Y. Times, Apr. 7, 2016. <https://www.nytimes.com/2016/04/07/science/artificial-intelligence-when-is-the-singularity.html>
- Biggins, How The World is Preparing for the AI Apocalypse, Medium, Sept. 12, 2017. <https://medium.com/s/ai-dirty-little-secret/how-to-prepare-for-the-ai-apocalypse-80fb815a9166>
- Hanson, Human Legacies When Robots Rule the Earth, MIT Technology Review, Oct. 3, 2017. <https://www.technologyreview.com/s/609042/human-legacies-when-robots-rule-the-earth/>
- Gricks, Ambrogi, A Brief History of Technology Assisted Review, Law Technology Today, Nov. 17, 2015. <https://www.lawtechnologytoday.org/2015/11/history-technology-assisted-review/>

Recommended.



- Rise of the Robots: Technology and the Threat of a Jobless Future by Martin Ford (2016).
- AlphaGo, a documentary about a challenge match between Google's Deep Mind AI Algorithm and Lee Sedol, the legendary Go Master. www.alphagomovie.com
- Deloitte, Using AI to unleash the power of unstructured government data, Jan. 16, 2019. <https://www2.deloitte.com/insights/us/en/focus/cognitive-technologies/natural-language-processing-examples-in-government-data.html>

QUESTIONS?



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Tess Blair is a litigator and legal entrepreneur who has practiced at the intersection of law, technology, and design for more than two decades. Tess is the founder and leader of Morgan Lewis's eData practice, a data-driven practice that combines great lawyering with technology and design to enhance the delivery of legal services.

A practicing litigator, Tess serves as national discovery counsel to some of the world's largest organizations. She counsels a host of Fortune 500 companies, conducting risk assessments and guiding her clients as they develop internal information governance policies and controls to address privacy, security, retention, and disposition of information and data. She also helps her clients develop defensible models for responding to requests for information in litigation or investigations and marshals resources for such contingencies to assist her clients in satisfying their discovery obligations.

For clients in litigation, Tess frequently serves as discovery counsel alongside her client's trial counsel, as a core member of the litigation team; she develops and executes all aspects of the client's discovery strategy as well as optimizing her client's evidence gathering, analysis, and presentation. Her role as discovery counsel includes negotiating the scope and conduct of discovery, developing ESI protocols, protective orders, and specialized procedures for cross-border transfer of data subject to privacy laws. She takes and defends record custodian and discovery-related depositions, handles all discovery-related motion practice, and drives all managed review, analysis, and production.

As leader of eData, Tess works with her team, her colleagues, and clients to design and develop tools and techniques to improve the delivery of legal services. Tess built the eData practice into a multidisciplinary team of lawyers, technologists, business professionals, designers, developers, and data scientists who design and deliver legal products and services to enhance the Morgan Lewis client experience across the firm's practices, industries, and disciplines. The eData team uses process design, automation, UX, product design, application development, machine learning, and augmented intelligence tools to develop technology, process, and service solutions built to meet our clients' needs. A Six Sigma Green Belt, Tess invests heavily in training the entire eData team in Legal Project Management, Six Sigma and Legal Design.

Tess lectures regularly on civil procedure, ediscovery, and data privacy—including cross-border discovery and data minimization—and writes frequently on ediscovery, information governance, and data privacy for a variety of legal publications. She is the lead author of the *eData Deskbook*, currently in its third edition. Tess also serves as Special Discovery Master to the Eastern District of Pennsylvania. She has been *Chambers* ranked nationally for nine years and globally for seven years in electronic discovery. In 2019, Tess was named one of the Top Ten Most Innovative Lawyers in North America by the *Financial Times*. Tess holds a Master of Professional Studies on Law Firm Management and studied industrial design at the Philadelphia College of Art before completing an undergraduate degree in philosophy at Ursinus College. Bringing entrepreneurial experience to her clients, Tess started and operated a small business before entering law school.

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Charles Imohiosen brings a diverse set of professional experiences and skills to assist clients in leveraging people, processes, and technology to evaluate and manage their electronic data, and to deliver greater efficiencies to their legal processes, including electronic discovery. A veteran litigator, Charles has managed ediscovery reviews and related motion practice for complex matters.

Charles' experience in technology and operations ranges from having assisted hundreds of customers across multiple industries in their migration to the cloud while working for a large enterprise software company to building strategic plans as chief operating officer for the New York State Economic Development Corporation.

Charles also has broad-based experience working on regulatory matters in US federal, state, and local government, including having previously served as a senior advisor for the White House Hurricane Sandy Rebuilding Task Force and counselor in the Office of the Administrator for the US Environmental Protection Agency.

Charles previously worked as an associate in the litigation practice of a national law firm. He co-authored two amicus briefs for voting rights cases involving strict voter ID laws, in association with the Brennan Center for Justice at the New York University School of Law, and maintained an active pro bono practice.

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Brendan R. Kalb utilizes his in-house asset management and corporate legal experience to counsel clients on issues relating to the establishment and ongoing operation of global hedge funds, private equity funds, commodity pools, UCITS funds, hybrid customized vehicles, and separately managed accounts, along with providing regulatory, compliance, and trading advice to managers investing in various asset classes in the United States and abroad. He also has deep experience advising on the structuring and operation of various registered fund products, including liquid alternative funds.

Prior to joining Morgan Lewis, Brendan was the managing director and general counsel at AQR Capital Management, LLC, a systematic global asset management firm based in Greenwich, CT, where he was responsible for managing the full spectrum of the firm's legal affairs, including involvement in all aspects of US and overseas regulatory exams, product structuring, derivatives and operational risk management, quantitative investment practices, drafting of investment guidelines and restrictions, creation and update of compliance policies and procedures, as well as implementation and interpretation of international rules and regulations regarding trading and marketing.

Prior to joining AQR in 2004, he worked as an investment management associate in the New York office of an international law firm, where he regularly represented registered investment companies, investment advisers, commodity pool operators, commodity trading advisers, and broker-dealers.

Earlier in his career, Brendan gained experience as an associate in the financial services and investment management department of a regional law firm, where he dealt in related matters with respect to investment advisers, including commodity pool operation, management company structuring, fund marketing and advertising, employment agreements, joint ventures, and seed capital arrangements.

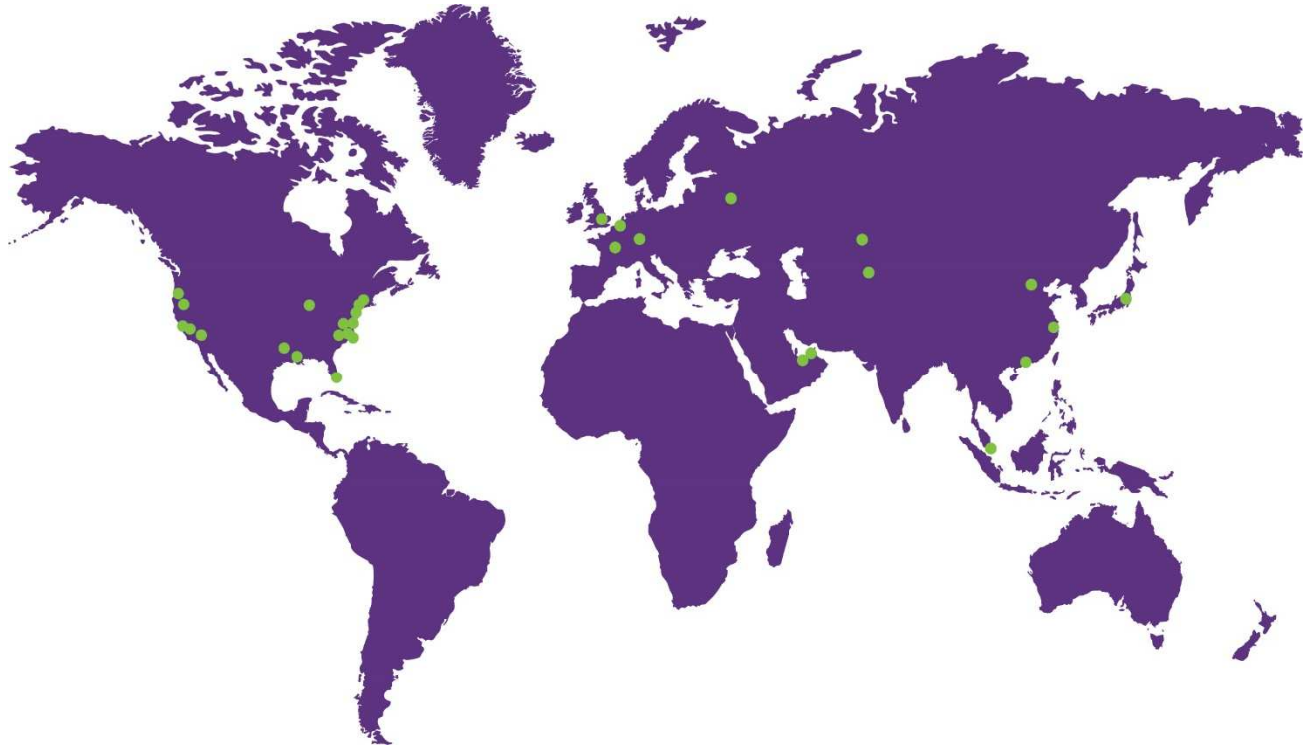
Brendan has spoken at a number of industry conferences on regulatory matters affecting the financial services industry and previously served as chairman of the Managed Funds Association's CTA, CPO, and Futures Committee and as a member of MFA's Investment Adviser, International and Government Affairs Committees. In addition, he has served on the National Futures Association's board of directors and is an active member of the Investment Company Institute's Equity Markets, CPO Advisory and Derivatives Markets Advisory Committees. Brendan also serves on the board of advisors of the Institute for Law and Economics, a joint research center between the Law School, the Wharton School, and the Department of Economics at the University of Pennsylvania.

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