

# Ethical Issues Posed by Artificial Intelligence

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Sandra R. McCandless  
San Francisco, California  
+1 (415) 882 2412  
sandra.mccandless@dentons.com  
Dentons US LLP

Stephen Klein  
Chief Strategy Officer, Nextlaw  
+1 (415) 830 1400  
stephen.klein@dentons.com  
Dentons US LLP

# Purpose

- Overall purpose: To identify and begin to analyze the ethical and legal issues posed by Artificial Intelligence and related technologies
  - To provide a broad perspective on Artificial Intelligence (AI) so we can better understand its impact today and tomorrow, the assumption being
    1. We can't begin to understand the ethical implications of the subject without the big picture
    2. We need historical perspective, high-level understanding of technology, and some AI background to understand AI ethical issues
- To interest you in learning more about this critical topic so that you can prepare yourself and your company to leverage new technologies and begin to understand and analyze the AI ethical issues

# Unprecedented Multi-Disciplinary Collaboration

- Engineers
- Scientists
- Mathematicians
- Cognitive Scientists
- Neurologists
- Philosophers
- Lawyers
- Regulators
- Executives
- Politicians

**“Our industry is being disrupted, and we should do some of that ourselves, not just be a victim.”**

John Fernandez, Global Chief Innovation Officer, Dentons

# AI Definition

“Artificial Intelligence is a cross-disciplinary approach to understanding, modeling and replicating intelligence and cognitive processes by invoking various computational, mathematical, logical, mechanical, and even biological principles and devices.”

Source: *The Cambridge University Handbook of Artificial Intelligence*

# Webster's Definition

1. A branch of computer science dealing with the simulation of intelligent behavior in computers
2. The capability of a machine to imitate intelligent human behavior

# Some AI Pioneers

## Astro Boy (1952)



# The Jetsons: Rosie the Maid (1962)



# Lost in Space: Class M-3 Model B9 (1965)



# Star Trek Next Generation: Data (1994)

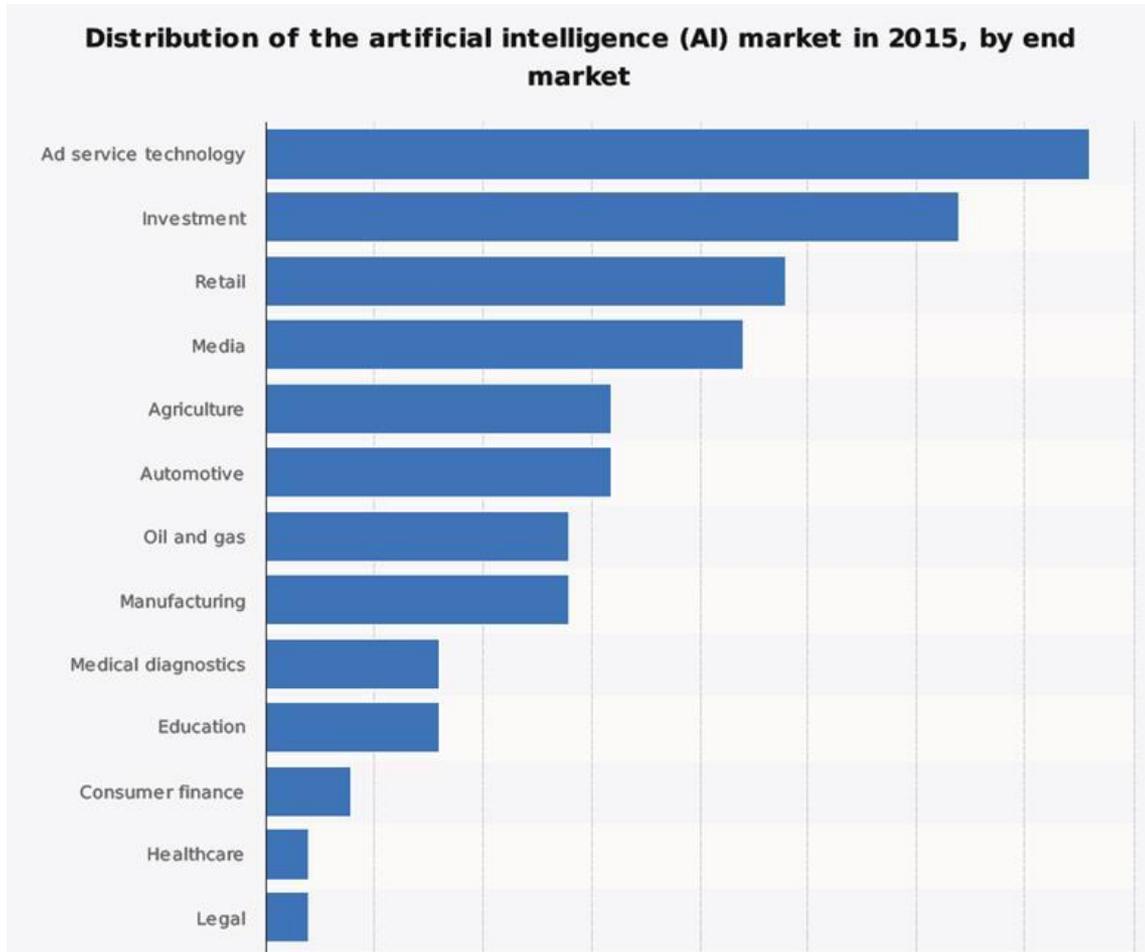


# And Then There Was Watson (2011)



- Developed by IBM's DeepQA project
- Watson beat former Jeopardy world champions
- Extraordinary example of Narrow AI
- Watson had access to 200 million pages of structured and unstructured data

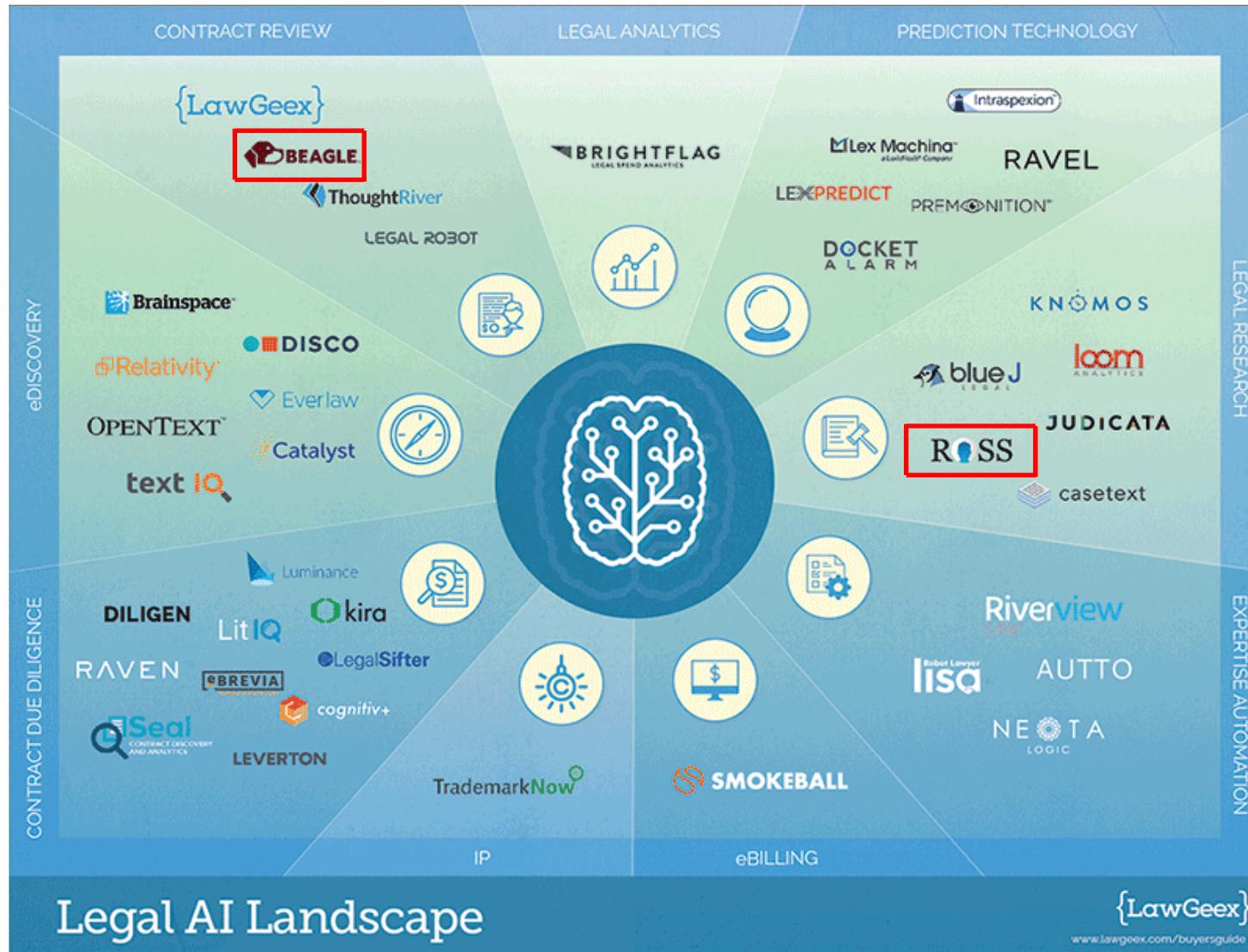
# AI Spend by Industry



**484%**  
increase in  
legal  
technology  
patents  
over the  
past five  
years

Source: *Statista*, 2015

# Legal AI Landscape

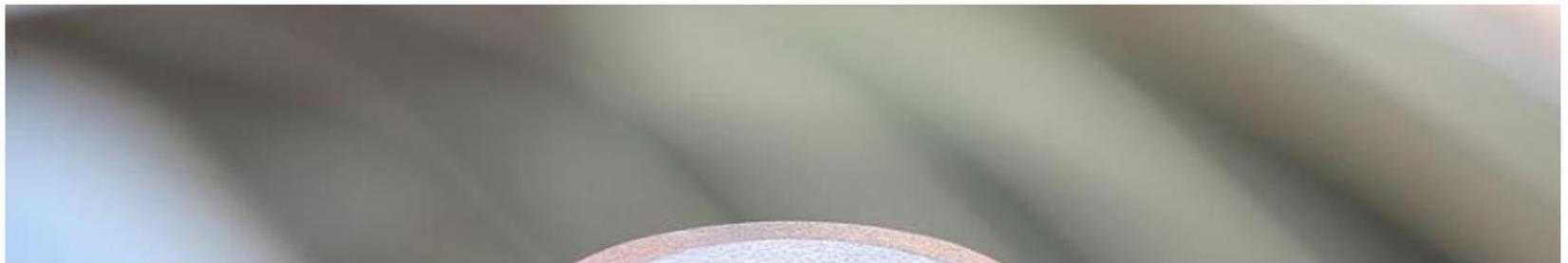


Source: Jonathan Marciano, Automating the Law, A Landscape of Legal AI Solutions, *TOPBOTS*, June, 2017



# ROBOT LAWYER OVERTURNS \$4 MILLION IN PARKING TICKETS

BY **ANTHONY CUTHBERTSON** ON 6/29/16 AT 6:42 AM



## Josh Browder (Then)

- Born in 1997
- Created AI based Chat Bot called Do Not Pay to appeal parking tickets
- 375,000 appeals last year (about 60+% win rate), 4 million year one
- Youngest-ever person on Forbes under 30 rising star list in the law category
  - Joshua Browder doesn't have a law degree
  - He is a coder
  - He doesn't charge for his services

## Josh Browder (Now)

- DoNotPay claims to have saved \$9 million to date, 375,000 people
- Entrepreneur-in-residence at Greylock
- Says he wants his Chat Bot to remain free
- Says he wants to go after more complex legal processes
  - Bankruptcies
  - Marriages
  - Divorces

**This raises obvious ethics questions involving a non-lawyer using AI to replace lawyers so what is the legal framework?**

Source: *Forbes, VentureBeat, The New Yorker*

# ABA Model Rule of Professional Conduct 1.1

## 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.
- Comment 8 on Rule 1.1
- **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, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.**

# California Rules of Professional Conduct 3-110

## Failing to Act Competently

- (A) A member shall not intentionally, recklessly, or repeatedly fail to perform legal services with competence.
- (B) For purposes of this rule, "competence" in any legal service shall mean to apply the 1) diligence, 2) learning and skill, ... reasonably necessary for the performance of such service.
- (C) If a member does not have sufficient learning and skill when the legal service is undertaken, the member may nonetheless perform such services competently by 1) associating with or, where appropriate, professionally consulting another lawyer reasonably believed to be competent, or 2) by acquiring sufficient learning and skill before performance is required.

# ABA Model Rule of Professional Conduct Rule 1.1 Competence

- The legal industry has lagged behind. Comment 8 (technology) to Rule 1.1 (Competence) was just recently added in 2012.
- Competent representation of clients will ultimately require sufficient knowledge of AI to advise and supervise regarding its use and its benefits and risks (potential liability).
- This can, of course, include the use of other attorneys and vendors who are specialists.
- Rule 1.1, Comment 8, is written generally; the lawyer's duty will evolve as technology advances.
- We need not be AI specialists but, as with electronic discovery, we will need sufficient understanding to provide competent representation in transactions and litigation.

# ABA Model Rule of Professional Conduct 2.1 Advisor

- In representing a client, a lawyer shall exercise independent professional judgment and render candid advice. **In rendering advice, a lawyer may refer not only to law but to other considerations such as moral, economic, social and political factors, that may be relevant to the client's situation.**

## California Business and Professions Code 6068 (e)(1)

- It is the duty of an attorney ...:
- (c) To counsel or maintain those actions, proceedings, or defenses only as appear to him or her legal or just, except the defense of a person charged with a public offense.

**Needless to say, the rendering of ethical legal advice in the context of AI in the future will involve much more than purely legal analysis.**

# Comments 2 and 4 to ABA Model Rule of Professional Conduct 2.1

- Advice couched in narrow legal terms may be of little value to a client, especially where practical considerations, such as cost or effects on other people, are predominant. Purely technical legal advice, therefore, can sometimes be inadequate. **It is proper for a lawyer to refer to relevant moral and ethical considerations in giving advice. Although a lawyer is not a moral advisor as such, moral and ethical considerations impinge upon most legal questions and may decisively influence how the law will be applied.**
- Where consultation with a professional in another field is itself something a competent lawyer would recommend, the lawyer should make such a recommendation. At the same time, a lawyer's advice at its best often consists of recommending a course of action in the face of conflicting recommendations of experts.

# ABA Model Rule of Professional Conduct 1.6

## Confidentiality Of Information

- (c) 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.

## California Business and Professions Code 6068 (e)(1)

- It is the duty of an attorney ...:
- (e) (1) To maintain inviolate the confidence, and at every peril to himself or herself to preserve the secrets, of his or her client.
- California Rules of Professional Conduct 3-100 Confidential Information of a Client
- (A) A member shall not reveal information protected from disclosure by Business and Professions Code section 6068, subdivision (e)(1) without the informed consent of the client, or as provided in paragraph (B) of this rule.

# Comment 18 to ABA Model Rule of Professional Conduct 1.6

- Paragraph (c) requires a lawyer to act **competently to safeguard information** relating to the representation of a client **against unauthorized access by third parties** and against inadvertent or unauthorized disclosure by the lawyer or other persons who are participating in the representation of the client or who are subject to the lawyer's supervision. ... The unauthorized access to, or the inadvertent or unauthorized disclosure of, information relating to the representation of a client **does not constitute a violation of paragraph (c) if the lawyer has made reasonable efforts to prevent the access or disclosure.** Factors to be considered in determining the **reasonableness of the lawyer's efforts include, but are not limited to, the sensitivity of the information, the likelihood of disclosure if additional safeguards are not employed, the cost of employing additional safeguards, the difficulty of implementing the safeguards, and the extent to which the safeguards adversely affect the lawyer's ability to represent clients (e.g., by making a device or important piece of software excessively difficult to use).** A client may require the lawyer to implement special security measures not required by this Rule or may give informed consent to forgo security measures that would otherwise be required by this Rule. Whether a lawyer may be required to take additional steps to safeguard a client's information in order to comply with other law, such as state and federal laws that govern data privacy or that impose notification requirements upon the loss of, or unauthorized access to, electronic information, is beyond the scope of these Rules.

# Every aspect of the use of AI may intersect with the lawyer's duty of confidentiality

- Vendor sophistication and data protection
- Ownership of information
- Protection of confidential information in dealings with vendors
- Security measures
- Termination of relationship

# ABA Model Rule of Professional Conduct 5.3

## Responsibilities Regarding Nonlawyer Assistance

- With respect to a non-lawyer employed or retained by or associated with a lawyer:
- (b) 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. ...

# California Rules of Professional Conduct 3-110

## Failing to Act Competently

- Discussion: The duties set forth in rule 3-110 include the duty to supervise the work of subordinate attorney and non-attorney employees or agents. [numerous case citations omitted]
- In an emergency a lawyer may give advice or assistance in a matter in which the lawyer does not have the skill ordinarily required where referral to or consultation with another lawyer would be impractical. Even in an emergency, however, assistance should be limited to that reasonably necessary in the circumstances.
- In the new environment impacted by AI, exercising supervisory authority over those with AI responsibilities will be added to our existing challenges

# Other Ethically-related Issues

- Unauthorized Practice of Law
- There is no uniformity in how U.S. jurisdictions define unauthorized practice of law
- Benefits of direct access to consumer (e.g. DoNotPay) but consumers making legal decisions using AI without understanding and inability to ascertain mistakes
- Lack of public protection
- Report of European Parliament Committee on Legal Affairs has made Motion for Resolution with detailed recommendations to the Commission on Civil Law Rules on Robotics
- This represents the most advanced legal thinking on the subject
- Nothing similar exists in the United States

# Practical measures toward compliance with legal ethics requirements

- Maintain competence
  - Stay abreast of AI fundamentals and aware of its use in your legal practice or by your legal team
- Factor AI into your advice
  - We may not be AI specialists, but as AI continues to spread to legal technology and other products, attorneys have an ethical obligation to factor its limitations and liabilities into their advice
  - Recommend consulting outside experts as needed
- Construe confidentiality broadly
  - AI-based technologies will intersect with potentially every aspect of a lawyer's duty safeguard information and maintain confidentiality
- Exercise supervisory authority
  - Oversight of those with AI responsibilities (include non-attorneys) must include reasonable efforts to ensure their compliance with the professional obligations of the lawyer

# Warnings Against AI

**”I am in the camp that is concerned about super intelligence”**

Bill Gates

**“I think it’s too early to think about monitoring mechanisms. It’s more important right now to build a consensus in the industry and academia around what are the things that would have a chilling effect.”**

Skype co-founder Jaan Tallin

**“I agree that the future is scary and very bad for people. If we build these devices to take care of everything for us, eventually they’ll think faster than us and they’ll get rid of the slow humans to run companies more efficiently.”**

Steve Wozniak, Apple co-founder

**“I think we should be very careful about artificial intelligence. If I had to guess at what our biggest existential threat is, it’s probably that.”**

Elon Musk

**In short, the rise of powerful AI will either be the best, or the worst thing, ever to happen to humanity. We do not yet know which.”**

Stephen Hawking, Professor

Source: 11 times tech leaders warned us about artificial intelligence taking over the world, *Techworld*, Aug 2017

# Societal- Bank Case-Study

- A bank uses an AI algorithm to review and approve mortgages
- The bank is sued for discrimination
  - “Not possible”, the bank says: “The algorithm is deliberately blinded to race!”
  - But, the data shows that the percentage of black applicants being accepted is rapidly going down
  - What’s going on?
- What is the algorithm doing? There’s no transparency, no way for the non-expert end user to understand or find the problem, let alone fix it.

# Example of AI Today

- Stony Brook University released an app called NamePrism that could guess the ethnicity of a person to over 80% accuracy based on their name
  - Intent was to help build diversity and prevent discrimination
  - The danger is obvious

Source: AI Research is in Desperate Need of an Ethical Watchdog, *Wired*, Sept 2017

# Overall Professional Ethical Guidelines

1. Transparency
2. Predictability
3. Tamper-Proof
4. Accountability

Source: *The ethics of artificial intelligence*, Nick Bostrom, Prof in the Faculty of Philosophy at Oxford Univ. and Director of the Future of Humanity Institute and Eliezer Yudkowsky, Research Fellow at the Machine Intelligence and Research Institute

# Predictions for How AI Will Change Work in General

- Real-time compliance analysis
- Real time coaching
- Training
- Signs of impending departure
- Marketing
- Skill identification
- Appraisal and raises

# Will Robots Replace Lawyers?

- Will legal ethical requirements effectively serve as an impediment to robots replacing lawyers?
  - Natural language processing has been scanning and predicting relevant documents
  - How will AI continue to cut hours worked by lawyers and paralegal
  - McKinsey Global Institute predicts that about one-quarter of attorney work can be automated
  - Attorneys will continue to do higher level work, leading a team which includes a machine
  - In-house attorneys are already justifiably unwilling to use first year associates at higher rates

# Nextlaw Labs, Nextlaw Ventures, Nextlaw In-House Solutions

## Nextlaw Labs

- Founded in 2015
- Charged with reinventing the business and practice of law
- Dentons' innovation arm providing "innovation as a service" to clients

## Nextlaw Ventures

- Investment arm of Nextlaw Labs
- Portfolio of 10 promising legal tech startups
- Several AI companies up and running

## Nextlaw In-House Solutions

- Launched in 2017
- Providing clients with strategy, management consulting and GC Advisory Services



AI-based solution

## The Problem

- 1/3 of an associate's billable time is spent on legal research
- Many legal research tasks begin on Google

## The Solution

- ROSS Intelligence expedites legal research with an AI platform leveraging IBM Watson
- Enables users to use natural language to search a billion documents per second and return highly relevant answers with citations and suggested resources
- Monitors the law for relevant changes that can affect cases, pushing out relevant alerts to users
- 'Learns' how to improve results the more it is used

### **Partner in a five-lawyer bankruptcy firm began using ROSS Intelligence**

- Purpose: Use ROSS Intelligence (IBM's Watson AI technology) to find the case most like his case
- Tested ROSS against his own research
- Found case almost identical to his almost instantly through ROSS; his research took 10 hours



AI-based solution

## The Problem

- Contract review is an incredibly time consuming task
- Many “routine” contracts are not reviewed by lawyers

## The Solution

- Beagle streamlines contract review
- Instantly scanning contracts
- Highlighting key information
- Real-time collaboration platform
- Machine learning capabilities enable Beagle to get 'smarter' with each reviewed contract
  - Learns the preferences of its user

# A Framework for Thinking About AI

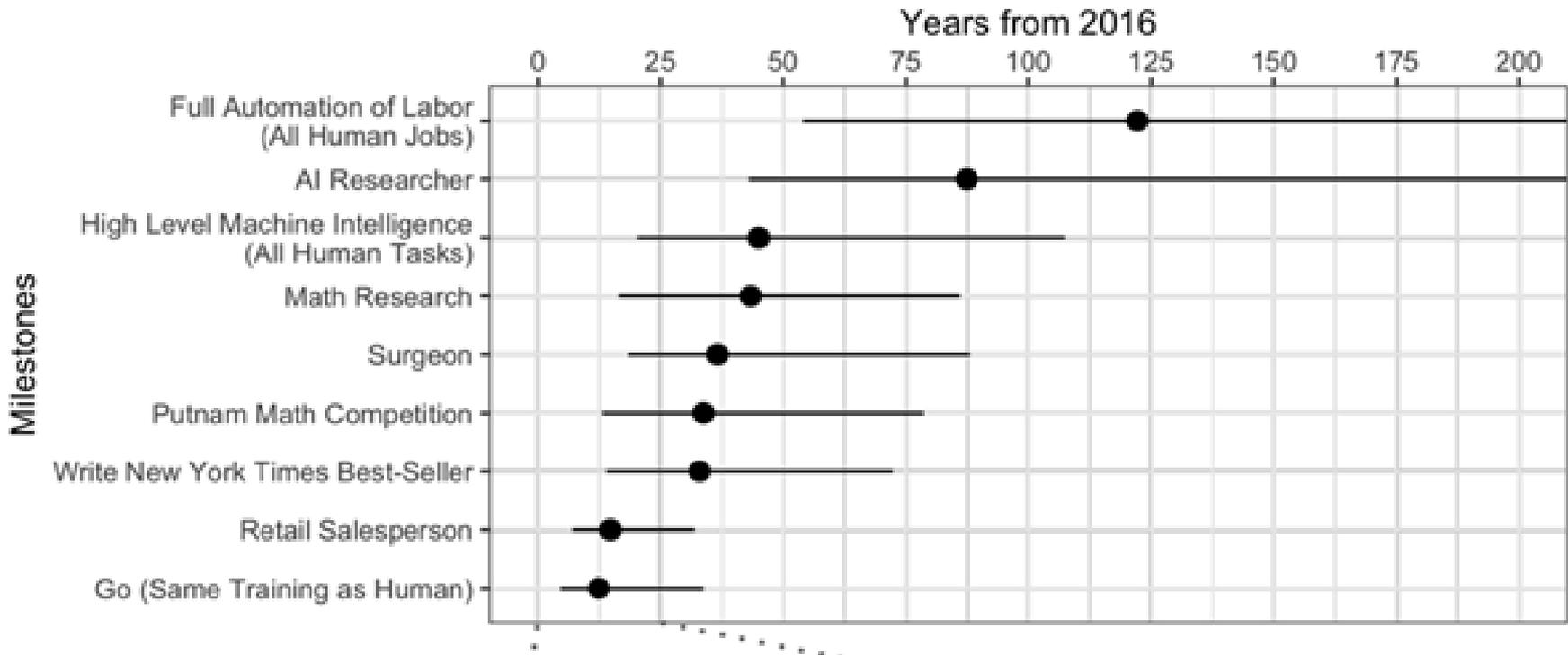
- When we first created cars, people thought it was the end of the family
- When we first created the telephone, people thought it was the end of society
- When we invented the written word, people feared the end of our ability to memorize things
- The above may all be true to some extent but it ignores the plus side
  - We can see the downside through the optic of our current paradigms, like job loss
  - But we can't see the plus side, job creation for example, because it hasn't been invented yet

Source: Machine Intelligence Makes Human Morals More Important, Zeynep Tufekci, *TED Talk*, June 2016

# Predictions

“It’s difficult to make predictions, especially about the future.”

Niels Bohr



Source: *MIT Technology Review*, May 31, 2017

# Predictions

- The experts predict that AI will outperform humans in the next 10 years in tasks such as translating languages (by 2024), writing high school essays (by 2026), and driving trucks (by 2027).
- AI won't be better than humans at working in retail until 2031, able to write a bestselling book until 2049, or capable of working as a surgeon until 2053.
- The experts a 50 percent chance that AI will be better than humans at more or less everything in about 45 years

Source: *MIT Technology Review*, May 31, 2017

# In-House Counsel Opportunity

AI can help in-house counsel in many ways:

1. Create unprecedented efficiencies and cut costs
2. Play a dramatically more strategic enterprise role
3. Develop new methodologies for benchmarking quality
4. Rethinking new ways to provide value to the enterprise
5. Get engaged in the establishment of ethical guidelines, new regulations and laws that will undoubtedly be required

But AI poses challenges:

1. Must adapt and become fluent in technology and its implications
2. Must become aware of ethical implications of AI and help inform others in the organization
3. Must begin to sort the types of activities that can be performed better and/or more efficiently versus those that will continue to require humans

# In Conclusion

- The hype about AI replacing lawyers is likely overblown
- Lawyers will need to play a critical role in and around AI ethics as new regulations and laws will need to be drafted
- AGI will be the last innovation humans will ever need to create
- The moment AI can read it will read everything ever written in days
- Its creation is inevitable; progress is unstoppable
- It's up to each of us to learn and prepare
- It's up to humanity to understand and control AI
- Perhaps if the Golden Rule were a computer algorithm between people and intelligent machines, that'd be a good place to start

# Thank you

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**Sandra R. McCandless**  
Partner, San Francisco/Oakland  
Dentons  
sandra.mccandless@dentons.com  
+1 (415) 882 2412



**Stephen Klein**  
Chief Strategy Officer  
Nextlaw  
stephen.klein@dentons.com  
+1 (415) 830 1400

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