

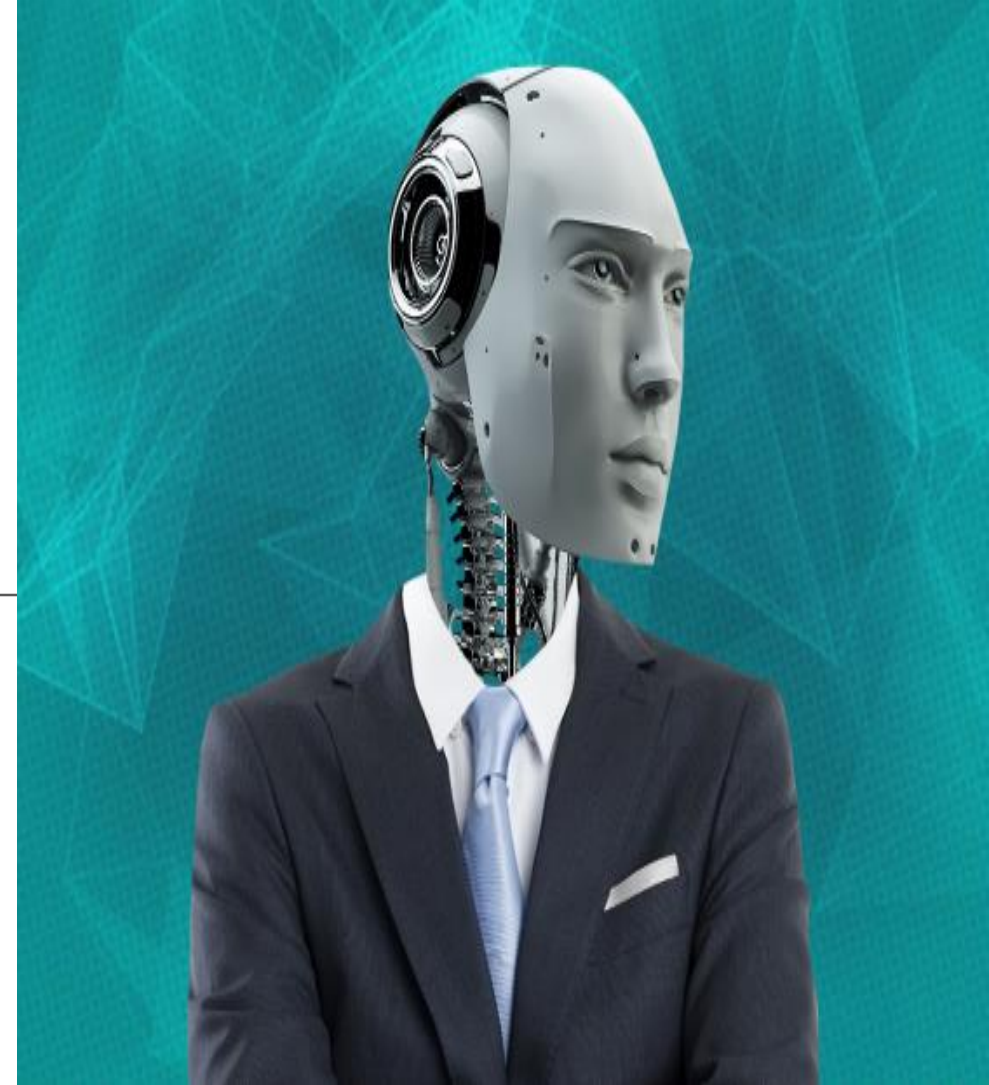


# Legal Analytics: Where Are We Now?

---

Josh Covey, Quarles & Brady

November 2, 2018





# **ARTIFICIAL INTELLIGENCE**

**JUST LIKE US. BUT BETTER.**



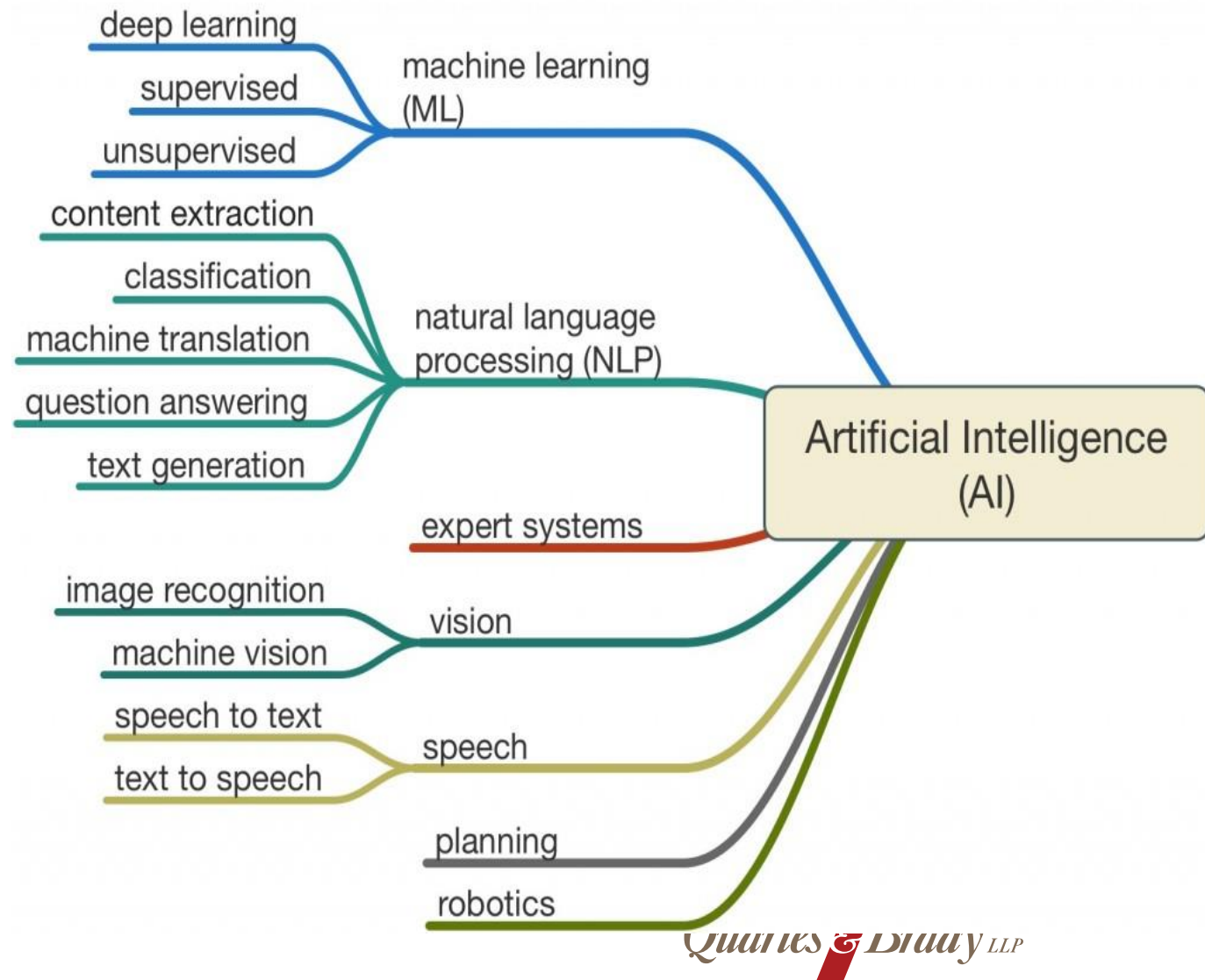
## 2 Common Beliefs

---

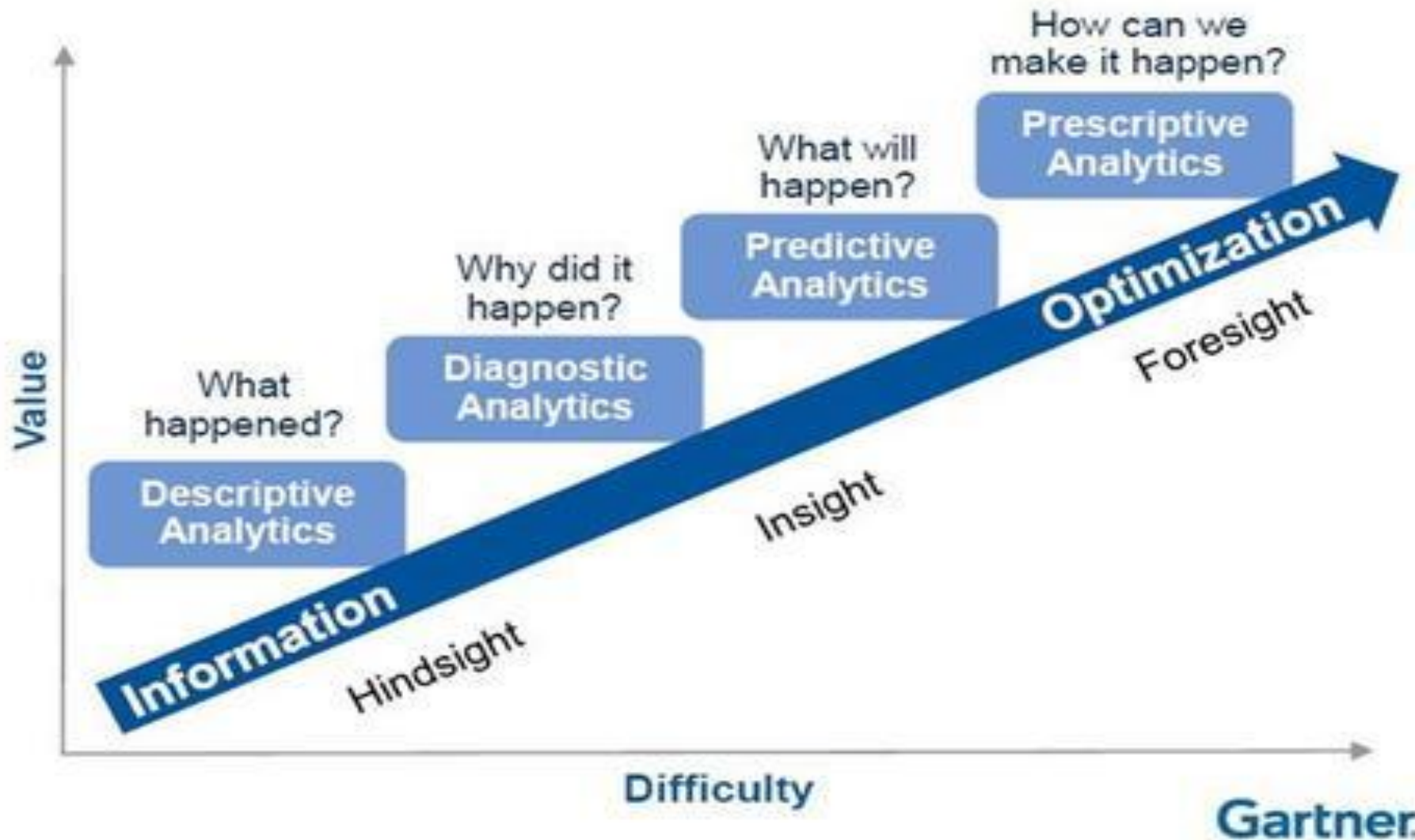
- Belief #1: “AI will replace all human lawyers in the next couple of years.”
- Belief #2: “A machine will never be able to do the kind of work that I do.”

# What is Legal Analytics ("LA")?

- Applying data analytics to the legal industry
- Practical, legal applications of data analytics (driven by AI)
- AI = umbrella term
  - Machine learning
  - Algorithms
  - Natural language processing
  - Neural networks
  - Expert systems
  - Etc.

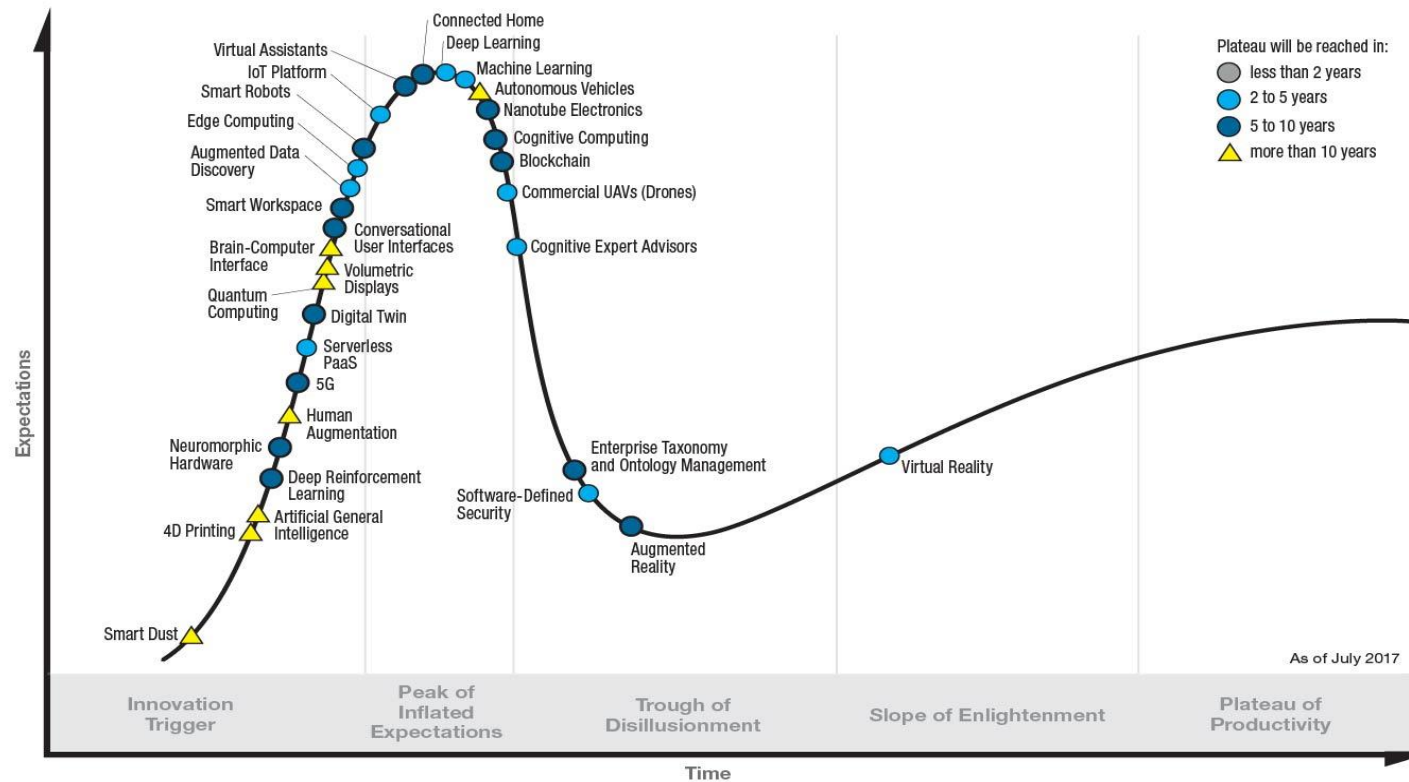


# LA Spectrum – Where Are We Now?



# Hype - Where Are We Now?

## Gartner **Hype Cycle** for Emerging Technologies, 2017



[gartner.com/SmarterWithGartner](https://gartner.com/SmarterWithGartner)

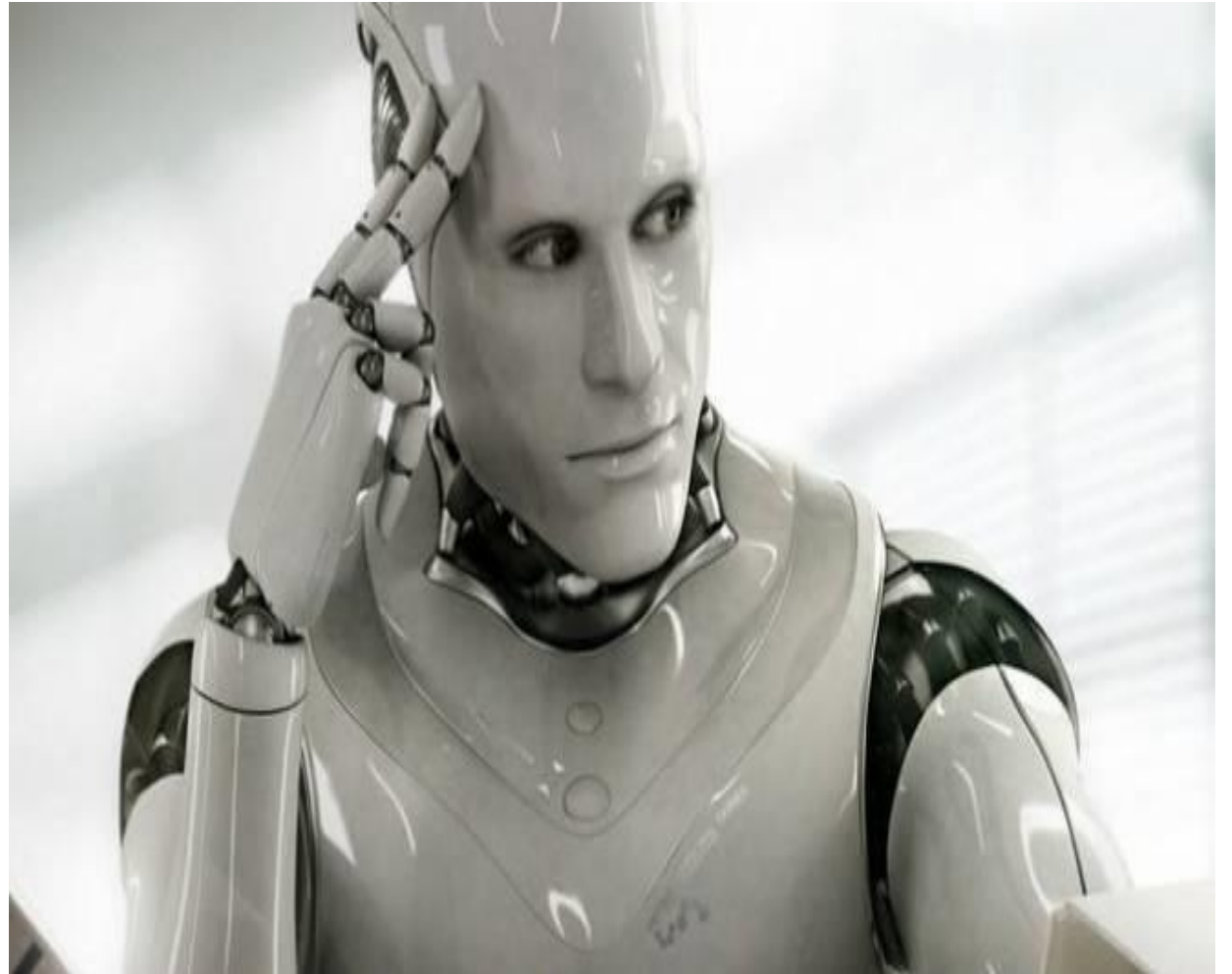
Source: Gartner (July 2017)  
© 2017 Gartner, Inc. and/or its affiliates. All rights reserved.

**Gartner**

*Quarles & Brady* LLP

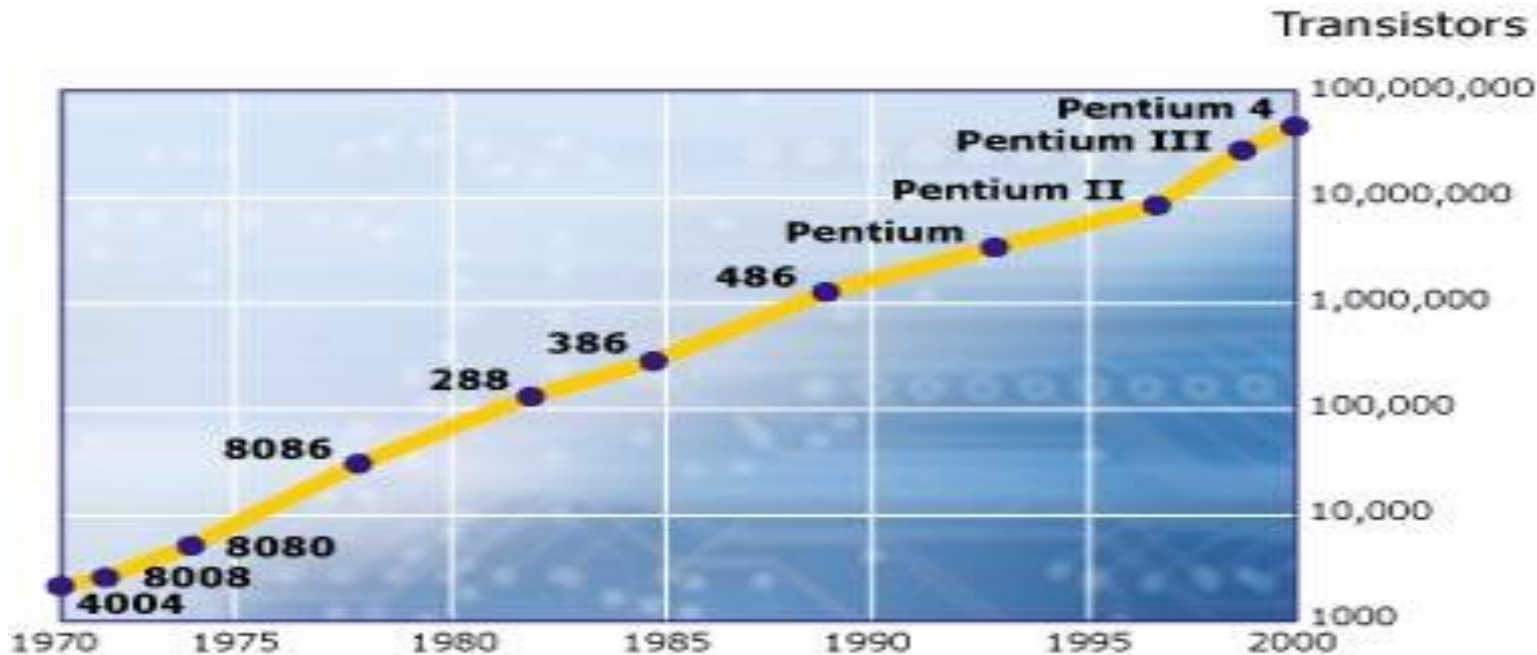
# So Why All the Hype Now?

- ...when much of the tech underpinning LA/AI has been around for decades
- Answer: current tech abilities + “big data” = **GAME CHANGER**



# Current Tech Abilities...What's So Special Now?

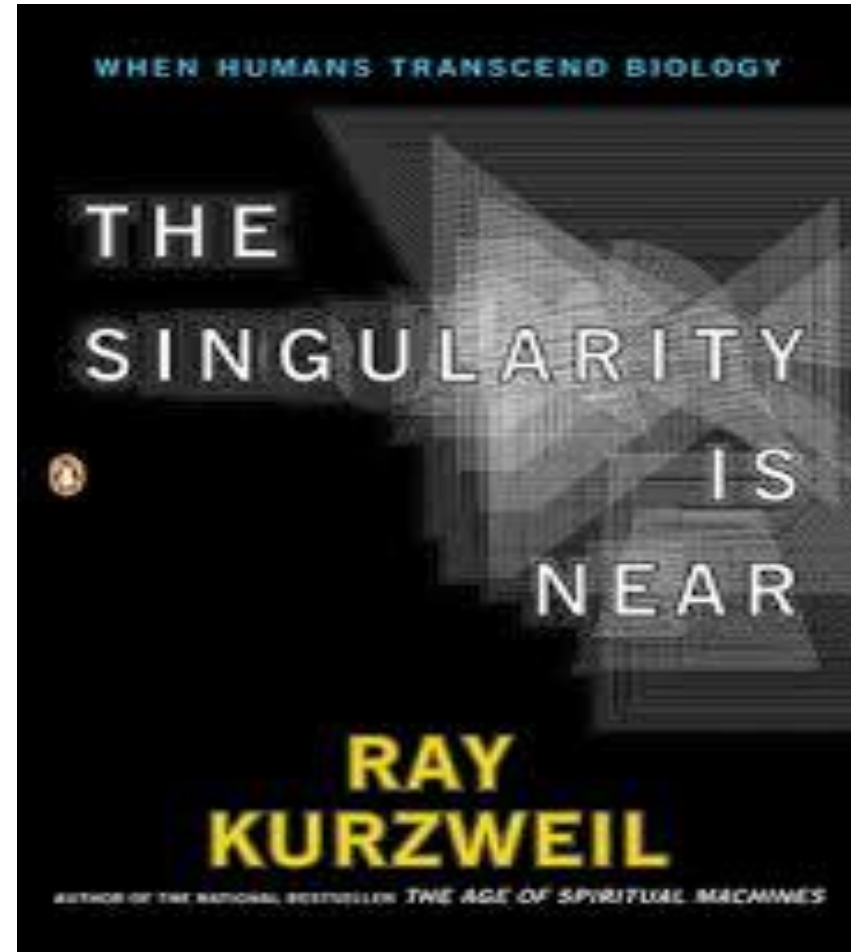
- Oversimplified Moore's Law = computing power doubles every 2 years
- Expected to continue for at least the next 2 decades
- 2, 4, 8 = not a big deal.  $2^{25}$  = big deal.





# Ray Kurzweil: Exponential Change

"An analysis of the history of technology shows that technological change is exponential [...] so we won't experience 100 years of progress in the 21<sup>st</sup> century – it will be more like 20,000 years of progress (at today's rate)."



# Machine Learning

## Human Computer Programming

- Machine mechanically implements *human-made code*
- Bad outcomes are attributable to *bad code by human programmer*
- *Human programmer can explain* why machine did what it did

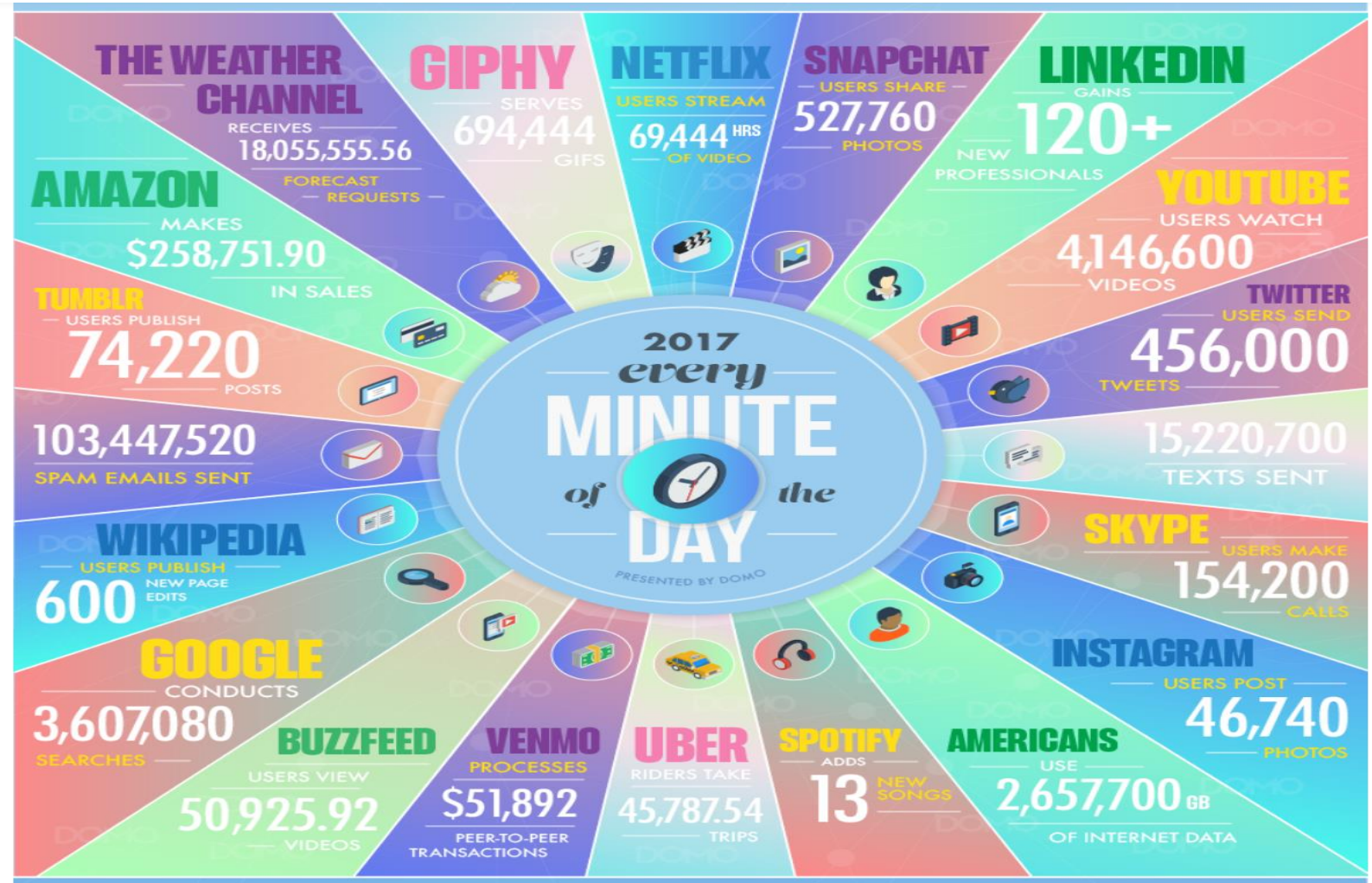


## Machine Learning

- Humans *provide data & specify overall goal* for machine
- Machine *self-learns & adapts* its approach to maximize specified goal
- *Limited explanation* for why machine did what it did

# "Big Data"

- Availability
- Every day 2.5 quintillion bytes of data is created
- Internet of Things: 200+ Billion devices by 2025



# Summing Up the LA Game Changer

---

- Explosion of digital data + exponentially increasing computing/tech abilities = unprecedented data analytics
- Those data analytics yield insights to meaningful trends in historical & increasingly real-time data
- Those insights "feed" into AI via machine learning, etc., which accelerates AI's evolution, which accelerates our ability to (1) perform data analytics & (2) develop & execute practical applications



# Belief #1: AI/LA Replaces All Attorneys Soon

---

- AI Limitations:
  - Lack of common sense
  - Bias in algorithms
  - Impact of bad data on AI's outputs
- Fact: Some highly-touted AI/LA stuff isn't that useful right now
- Humans are superior in critical thinking
- Effective client interaction, oral advocacy, negotiation, etc. = beyond scope of current AI

# Belief #2: AI/LA Can't Do Legal Work

---

- Simply doesn't align with current facts
- AI/LA is already impacting legal practice

## LegalMation Partners With Walmart to Provide Ground-Breaking Litigation A.I. Solution to Lower Litigation Costs

*Artificial Intelligence Software to Reduce Time to Prepare Responses to Lawsuits and Draft Initial  
Discovery Requests from 6-10 Hours to Less Than Two Minutes*

April 04, 2018 10:00 AM Eastern Daylight Time

LOS ANGELES--(BUSINESS WIRE)--LegalMation, pioneering developer of the first platform that automates early stage litigation work by leveraging innovative IBM Watson™ technology, announces today that Walmart will implement LegalMation's automated solution for all new lawsuits in key litigation areas as part of Walmart's initial case assignment process.

**"We are excited to team up with Walmart to find practical ways to lower costs and respond to the challenges of the new competitive legal market"**

 [Tweet this](#)

LegalMation's platform provides in-house legal teams and outside counsel the ability to respond to lawsuits and to draft the initial round of discovery requests in less than 2 minutes, shaving as much as *10 hours* of attorney time on *each lawsuit*. By simply uploading a PDF copy of a lawsuit, LegalMation automatically prepares a draft answer and initial set of targeted requests for documents, form interrogatories and special interrogatories.



The FindLaw Legal Technology Blog

## Machine Learning Saves JPMorgan Chase 360,000 Hours of Legal Work

By Casey C. Sullivan, Esq. on March 8, 2017 10:11 AM

Here's a [sobering](#) fact for lawyers: Last year, a machine learning program used by JPMorgan Chase saved the company 360,000 hours of work, work that would normally be performed by lawyers and loan officers.

That's more than 41 *years* worth of nonstop legal work -- all handled in a few seconds, by some well-designed software.

**"A New Era of Automation"**



# Spoiler Alert: The Trend Will Continue

---

1. McKinsey – 23%, Deloitte – 39% = legal work that can be automated; we're nowhere near those numbers
2. Economic pressures & increased competition will incentivize legal professionals to become more efficient
3. We've seen this before: once machines can compete, they quickly evolve to become superior in performance, reliability, & associated costs

# Legal Analytics Impacts Both the Process & Business of Law

---

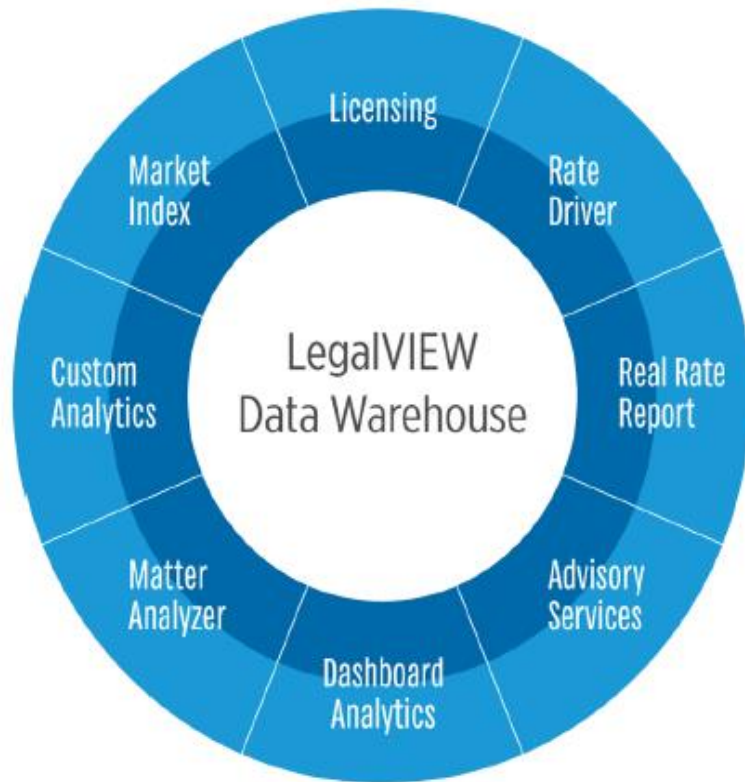
Automating & Augmenting Legal Processes with Legal Analytics Changes the Legal Industry's Economic Calculus

# #legaltech



LawGeex's map of the legal AI sector.

# Benchmarking & Comparative Analyses





# Electronic Discovery; Locating ESI

**“Studies have shown that technology-assisted review is at least 50 times more efficient than human-review, or manual, review.”**

Maura Grossman & Gordon McCormack, *Efficient E-Discovery*, ABA J. (April 2012).

**TECHNOLOGY-ASSISTED  
REVIEW (TAR)**

# Legal Research

The Washington Post  
*Democracy Dies in Darkness*

Innovations

## Meet 'Ross,' the newly hired legal robot

By Karen Turner May 16, 2016



Law firm BakerHostetler hired a robot to help with its bankruptcy cases. (iStock)

One of the country's biggest law firms has become the first to publicly announce that it has "hired" a robot lawyer to assist with bankruptcy cases. The robot, called ROSS, has been marketed as "the world's first artificially intelligent attorney."

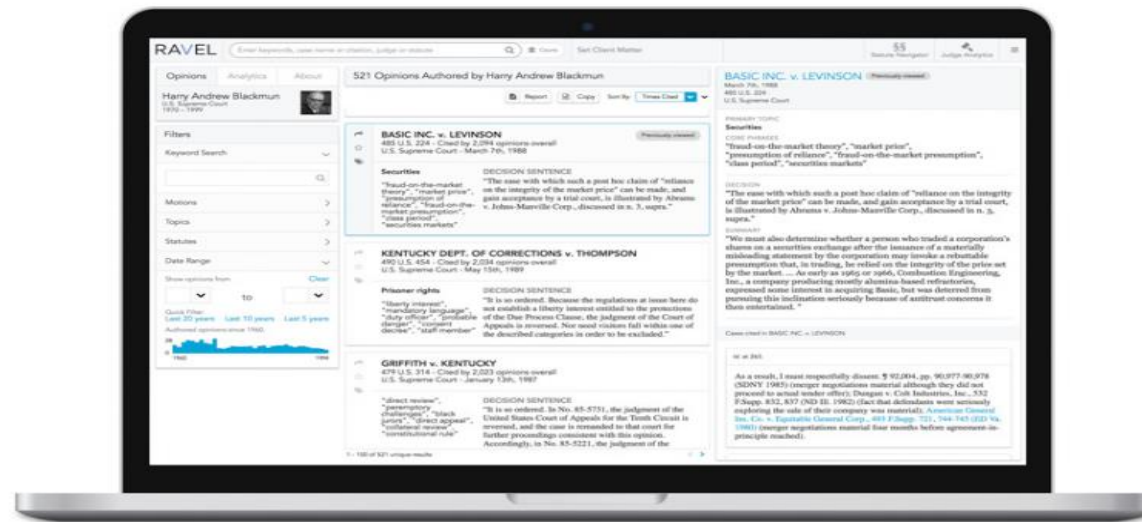
ROSS has joined the ranks of law firm BakerHostetler, which employs about 50 human lawyers just in its bankruptcy practice. The AI machine, powered by IBM's [Watson](#) technology, will serve as a legal researcher for the firm. It will be responsible for sifting through thousands of legal documents to bolster the firm's cases. These legal researcher jobs are typically filled by fresh-out-of-school lawyers early on in their careers.

Can read over a  
million legal pages  
per second

# Document Drafting & Judicial Analytics

## Judge Analytics

Understand how judges think, write, and rule.



### Judge Dashboard

The Judge Dashboard encompasses your Judge's entire career — every decision, every citation, housed in a single location. The dashboard lets you identify the cases, circuits, and judges your Judge finds most persuasive.



### Specific Language

Uncover the rules and specific language your Judge favors and commonly cites. Pinpoint distinctions that set your Judge apart to ensure you never miss the nuance that could win or lose your argument.




### Litigation Strategy

Make data-driven decisions about everything from how to frame arguments to whether to file a particular motion - decisions that can make or break a case.

# Case Outcome Prediction

## AI Beats Human Lawyers in CaseCrunch Prediction Showdown + DATA UPDATES

 [artificiallawyer.com/2017/10/28/ai-beats-human-lawyers-in-casecrunch-prediction-showdown/](https://artificiallawyer.com/2017/10/28/ai-beats-human-lawyers-in-casecrunch-prediction-showdown/)

artificiallawyer

October 28, 2017



*Quarles & Brady* LLP



# Jury Screening

## Voltaire Uses AI and Big Data to Help Pick Your Jury

[artificiallawyer.com/2017/04/26/voltaire-uses-ai-and-big-data-to-help-pick-your-jury/](http://artificiallawyer.com/2017/04/26/voltaire-uses-ai-and-big-data-to-help-pick-your-jury/)

artificiallawyer

April 25, 2017



Legal AI company **Voltaire** has launched an application that will allow lawyers and litigation consultants to rapidly analyse potential jurors by crunching public Big Data, including social media posts.

# Judicial Sentencing

## THE WALL STREET JOURNAL.

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <http://www.djreprints.com>.

<http://blogs.wsj.com/law/2016/07/13/court-judges-can-consider-predictive-algorithms-in-sentencing/>

### LAW BLOG

## Court: Judges Can Consider Predictive Algorithms in Sentencing

By JOE PALAZZOLO

Jul 13, 2016 5:04 pm ET



The Wisconsin Supreme Court, located in the State Capitol, is set to rule on whether algorithms used to predict criminality can be used in sentencing. PHOTO: GETTY IMAGES/SCIENCE SOURCE

Sentencing judges may take into account algorithms that score offenders based on their risk of committing future crimes, Wisconsin's high court ruled on Wednesday.

# *Wisconsin v. Loomis*

---

- Loomis pleaded guilty to two charges for his role in a drive-by shooting
- In sentencing, the trial judge relied (in part) on an AI-powered risk assessment tool:
  - COMPAS uses a proprietary algorithm to predict risk of recidivism based on (1) age at first offense, (2) current age, & (3) criminal history
- Trial court, appellate court, & Wisconsin Supreme Court all rejected Loomis' argument that reliance on proprietary algorithm violated due process
- U.S. Supreme Court denied cert in June 2017

# Legal Bots

The Telegraph

HOME | NEWS | SPORT | BUSINESS | ALL SECTIONS


## Technology

News | Reviews | Opinion | Internet security | Social media | Apple | Google

Technology

### 'Robot lawyer' that overturned 160,000 parking tickets now helping refugees

share | 2 Comments



Joshua Browder's DoNotPay is now helping refugees CREDIT: DONOTPAY

#### RECOMMENDED

- Hollywood's last true eccentric: the spectacularly odd life of American Gods star Crispin Glover**  
02 May 2017
- Can you spot the snake in this picture?**  
26 Apr 2017
- General election 2017: Polls and odds tracker**  
02 May 2017
- Warning over fake bank websites targeting British savers**  
02 May 2017
- Facebook could be used to find Madeleine McCann, expert says**  
27 Apr 2017



# Online Dispute Resolution

An illustration for a Modria advertisement. On the left, a cartoon man with glasses sits at a desk, typing on a keyboard. Behind him are two computer monitors. The monitor in front of him displays the Modria logo (a stylized 'M' in a circle) and the word 'MODRIA'. Above the logo is a red square with a white right-pointing arrow. To the left of the arrow is a yellow lemon, and to the right is a glass of orange juice. The headline 'Any issue, resolved.' is at the top right. Below it, text reads: 'Businesses and individuals the world over resolve their issues quickly and effectively with Modria, the Fairness Engine for the Internet. And so can you.' At the bottom right are two buttons: 'REQUEST A DEMO' in a red box and 'RESOLVE YOUR DISPUTE' in a yellow box. A red curved arrow points from the 'REQUEST A DEMO' button back towards the man at the computer.

Any issue, resolved.

Businesses and individuals the world over resolve their issues quickly and effectively with Modria, the Fairness Engine for the Internet. And so can you.

[REQUEST A DEMO](#) [RESOLVE YOUR DISPUTE](#)



# Civic Resolution Tribunal

What is the CRT?



Part of the justice system

1<sup>st</sup> online tribunal in Canada



Bringing the justice system to the public

© 2018 Quarles & Brady  
LLP - This document  
provides information of a  
general nature. None of  
the information contained  
herein is intended as legal  
advice or opinion relative  
to specific matters, facts,  
situations or issues.  
Additional facts and  
information or future  
developments may affect  
the subjects addressed in  
this document. You should  
consult with a lawyer  
about your particular  
circumstances before  
acting on any of this  
information because it  
may not be applicable to  
you or your situation.

# THANK YOU

---

**Josh Covey**

Attorney

(602) 229-5441

[josh.covey@quarles.com](mailto:josh.covey@quarles.com)



*Quarles & Brady* LLP