

## ARTIFICIAL INTELLIGENCE AND THE IN-HOUSE LAWYER

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## Artificial Intelligence Genuine Challenge





# OK – Artificial Intelligence is the **Next Big Thing** but what is it?

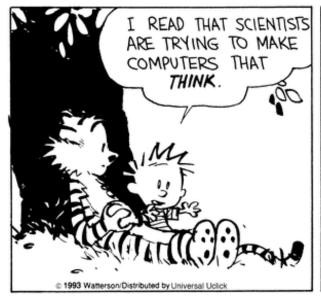
"A computer system able to perform tasks that normally require human intelligence."

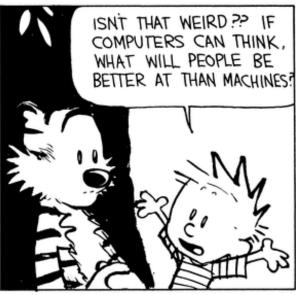
We will know we have achieved true AI when you're on a telephone or video conference with a computer and you can't tell it's not a human. (*Turing Test*)

"Whatever had not been done yet."



#### Artificial Intelligence, 1993







#### **Key Terms:**

- Machine learning: capability of software to learn from data and adapt with experience.
- Natural language processing: the alleged capability of software to structure, interpret, understand and generate human language.
- **Deep learning**: type of AI that attempts to mimic the activity of neurons in the brain to recognize patterns in data sets.
- Futurist: anybody with an imagination and a blog.

#### What Machine Learning Can Do ....

(As of Nov 2016)

INPUT A	RESPONSE B	APPLICATION
Picture	Are there human faces? (0 or 1)	Photo tagging
Loan application	Will they repay the loan? (0 or 1)	Loan approvals
Ad plus user information	Will user click on ad? (0 or 1)	Targeted online ads
Audio clip	Transcript of audio clip	Speech recognition
English sentence	French sentence	Language translation
Sensors from hard disk, plane engine, etc.	Is it about to fail?	Preventive maintenance
Car camera and other sensors	Position of other cars	Self-driving cars

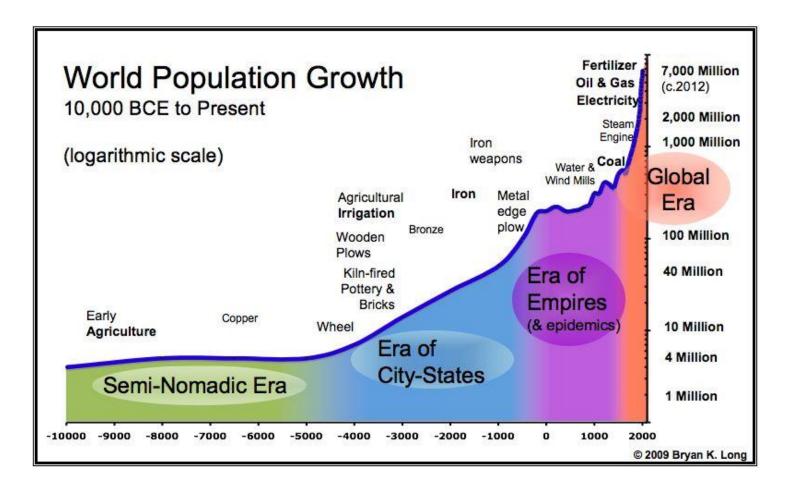
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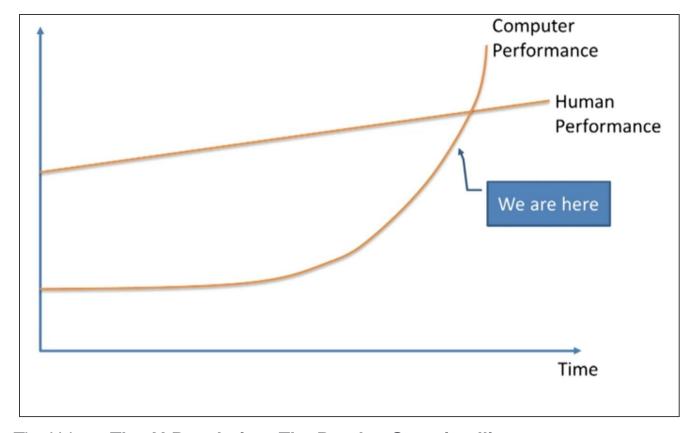
### What AI can't do (yet)

- Advise clients
- Appear in court
- Draft usable legal memos or briefs
- Draft contracts except mechanically populate data into simple forms
- Negotiate
- Take into account a client's priorities or subjective needs
- Work straight out of the box (sometimes)

#### Where we have been:



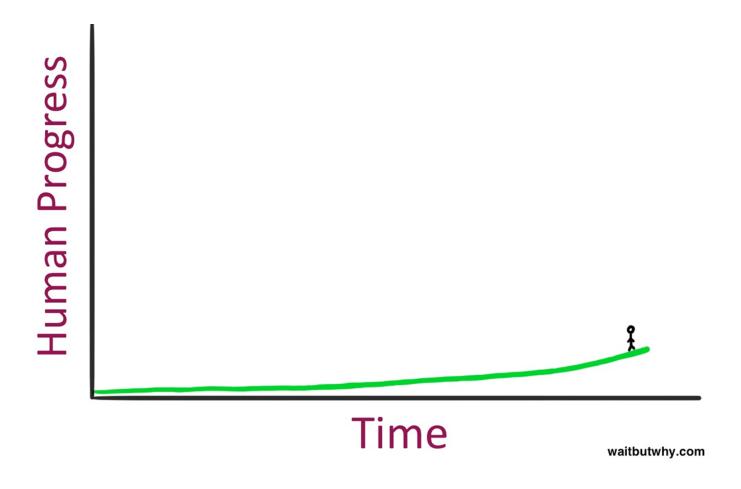
# What the futurists predict (with 100% confidence):



Tim Urban, **The Al Revolution: The Road to Superintelligence** January 22, 2015



#### What we actually know about the future:



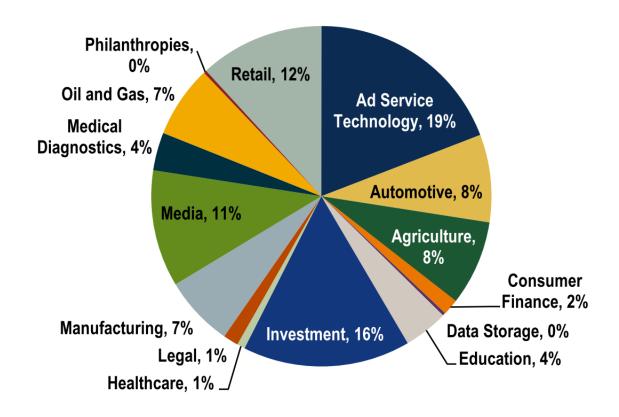






## Industries Using Al Now...

**Artificial Intelligence revenue end-market 2015** 



Source: Tractica



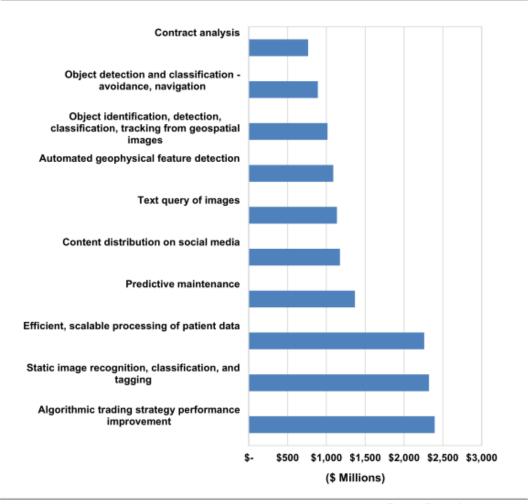
#### Industries to benefit most from Al:

Industry	2035 GVA (Baseline)	2035 GVA (Al steady state)
Manufacturing	\$8.4 trillion	\$12.2 trillion
Professional Services	\$7.5 trillion	\$9.3 trillion
Wholesale & Retail	\$6.2 trillion	\$8.4 trillion
Public Services	\$4.0 trillion	\$4.9 trillion
Information & Communication	\$3.7 trillion	\$4.7 trillion
Financial Services	\$3.4 trillion	\$4.6 trillion
Construction	\$2.8 trillion	\$3.3 trillion
Transportation & Storage	\$2.1 trillion	\$2.9 trillion



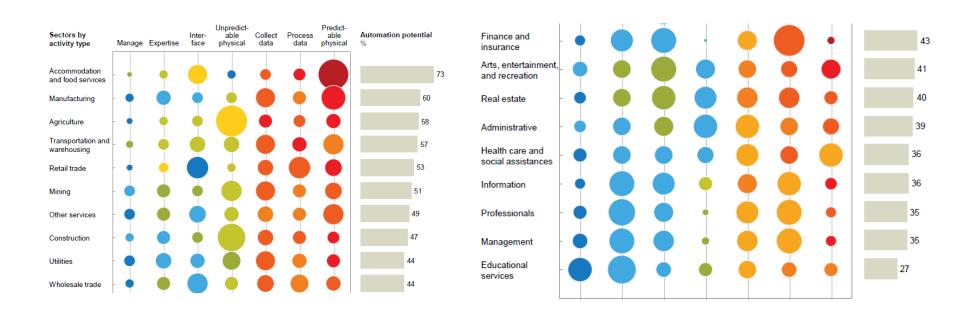
#### Top 10 Uses of AI in 10 Years

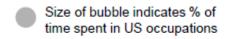
Artificial Intelligence Revenue, Top 10 Use Cases, World Markets: 2025

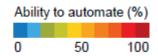




#### Automation potential varies per activity





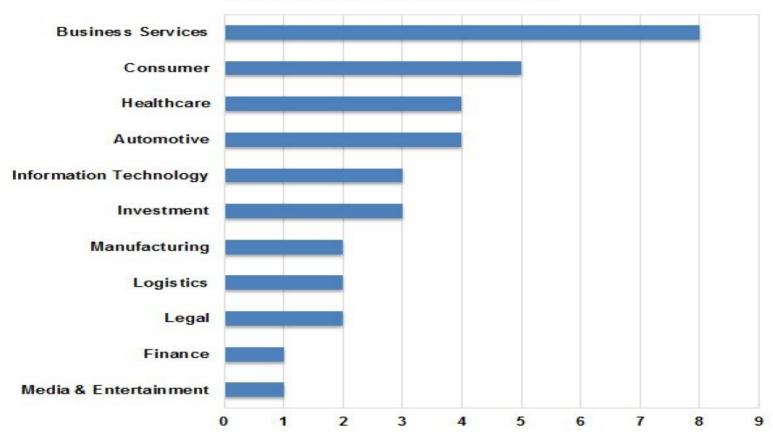


SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis



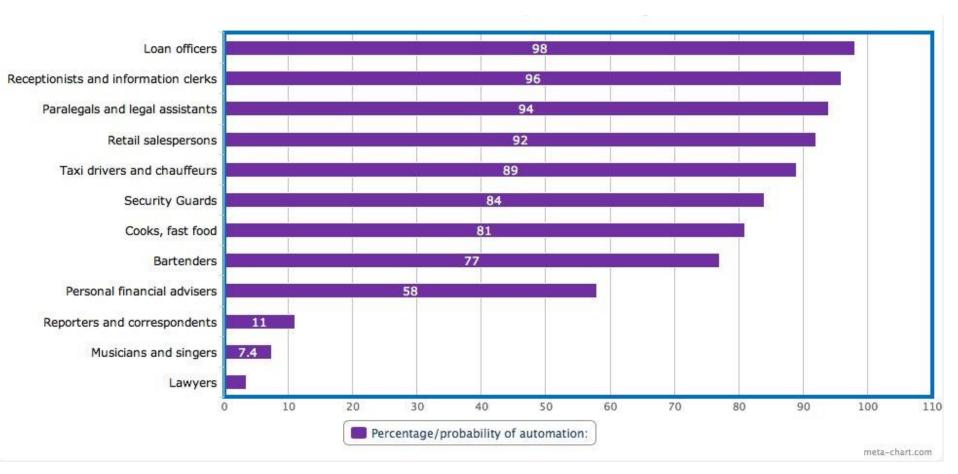
## Industries most likely to be affected

Number of Al Use Cases by Industry With High Job Impact





#### Careers at Risk from Al



Hayley Peterson, The 12 jobs most at risk of being replaced by robots, Business Insider, Oct. 29, 2015



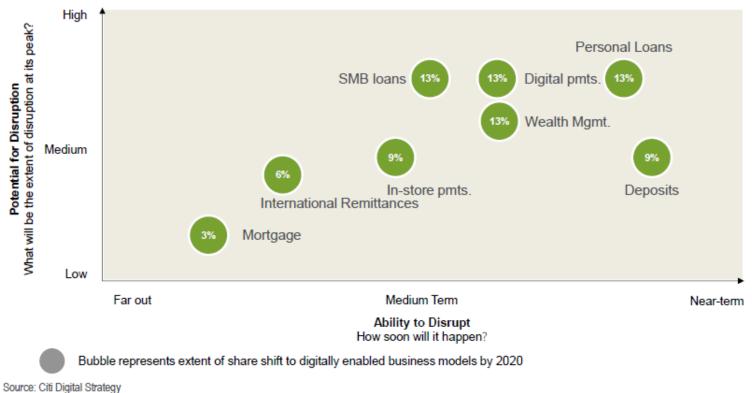
#### Al in Financial Services

- Credit Scoring / Direct Lending: All used for robust credit scoring and lending applications
- Insurance: Al is used to quote and insure
- Market Research: Al is used to efficiently research and measure sentiment
- Debt Collection: All is used to improve creditor collection through personalized and automated communication
- Regulatory, Compliance, & Fraud Detection: Al is used to detect fraudulent and abnormal financial behavior, and to improve general regulatory compliance matters



#### Al in Banks and Thrifts

Impact of Digital Disruption - By Business Line





#### Al in Finance

- Within a decade  $1/3 \frac{1}{2}$  of employees in finance will lose their jobs to software.
- First, lower-paid clerks were eliminated when stock tickers and trading tickets went electronic.
- Research and analysis parsing enormous data sets better and faster than humans could.
- Next: Employees who deal with clients? Will clients no longer feel they need or want to work with a human?

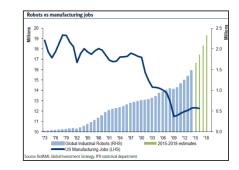
## Al in Manufacturing

 Only 10% of worldwide manufacturing tasks are automated right now

That's expected to increase to 45% over the next 10 years

as robots get much cheaper

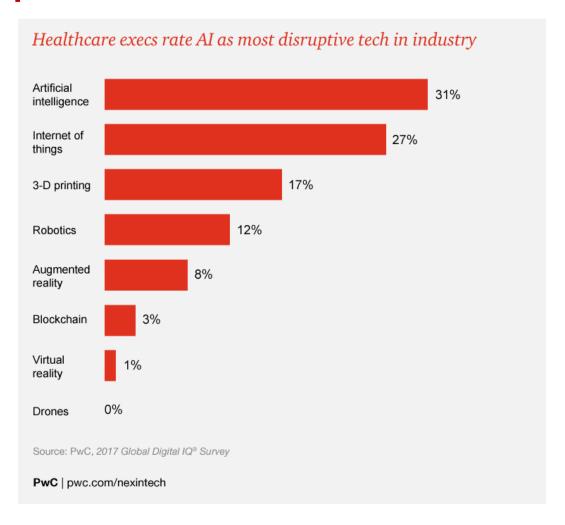
 Factory automation plus robotics lowers costs and creates pressure on traditional factory jobs



 Manufacturing driven data is exploding which will be used to improve production and supply chain, and lower energy consumption (with the use of AI and robotics)

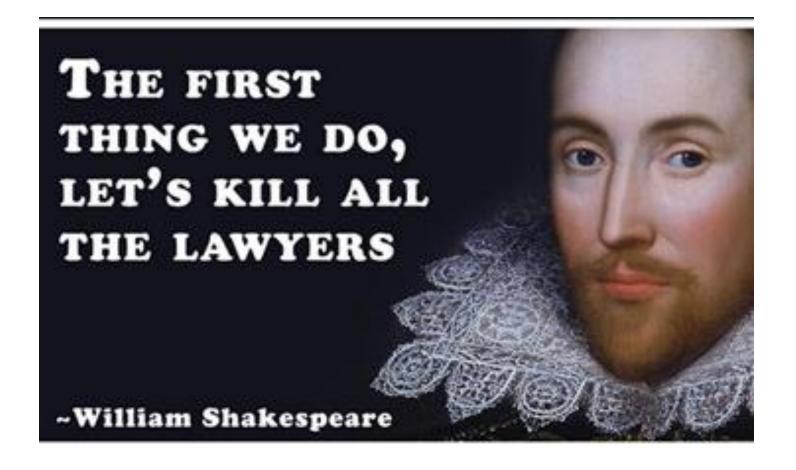


## Impact in Health Care





#### How AI will affect the legal profession



#### Affecting the Legal Profession

- Improving Business Management
  - Mine data for business intelligence
  - Aggregate data / dashboards
  - Predictive analytics
- Enhance / Expand Services
  - Due diligence in M&A
  - Post acquisition risk analysis
  - Transactions in corporate finance
  - Self-serve
    - HR Compliance
    - FCPA Compliance

- Improving Service Delivery
  - Legal research
  - Contract analysis
  - Outcome prediction
  - Due diligence in M&A
  - Technology / computer assisted review
    - Increase "speed to relevancy"
    - Accelerate first pass review
    - Early case assessment / strategy
  - Bankruptcy research
  - Intelligent workflow



#### General Legal Research





## Al Tools – General Applications

Tool Purpose



Helps complete contract review work faster while mitigating risk of errors and unexpected liabilities. Automatically highlights and extracts relevant contract language in any file format



Combines the Watson artificial intelligence technology developed by IBM with its own proprietary innovations to create a cheaper, faster research tool. Ask direct questions and ROSS will use A.I. to find the answers from the law in seconds - no more fumbling with boolean queries and thousands of keyword based results



Platform allows non-technical users to develop applications that ask pointed questions to gather facts and apply reasoning to reach conclusions and execute actions



Still in the development phase but is aiming to read, interpret, review and extract key information from a variety of legal documents



Virtual assistants that aim to improve the efficiency of in-house legal departments



Uses litigation data by extracting key legal information and metrics from a host of legal repositories to reveal insights never before available regarding judges, lawyers, and the subject of cases to aid in the highly competitive litigation

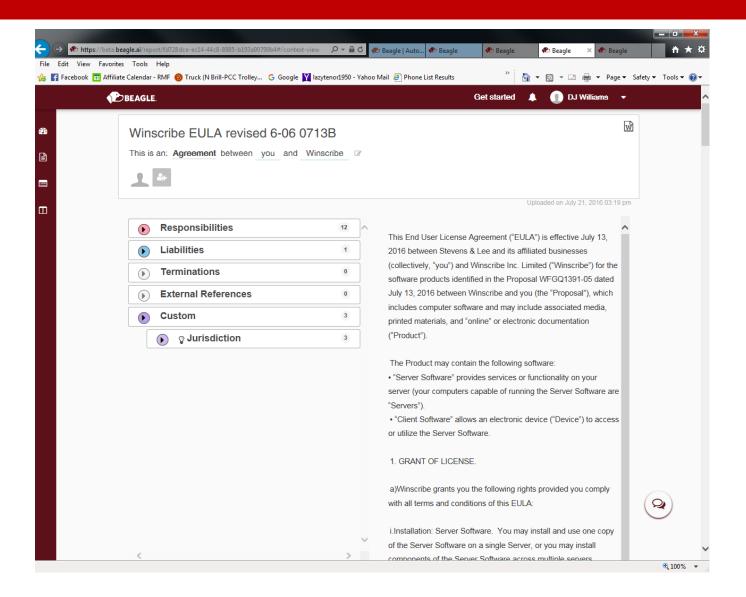


Uses AI to read and understand complex, detailed documents, to allow users to carry out necessary due diligence

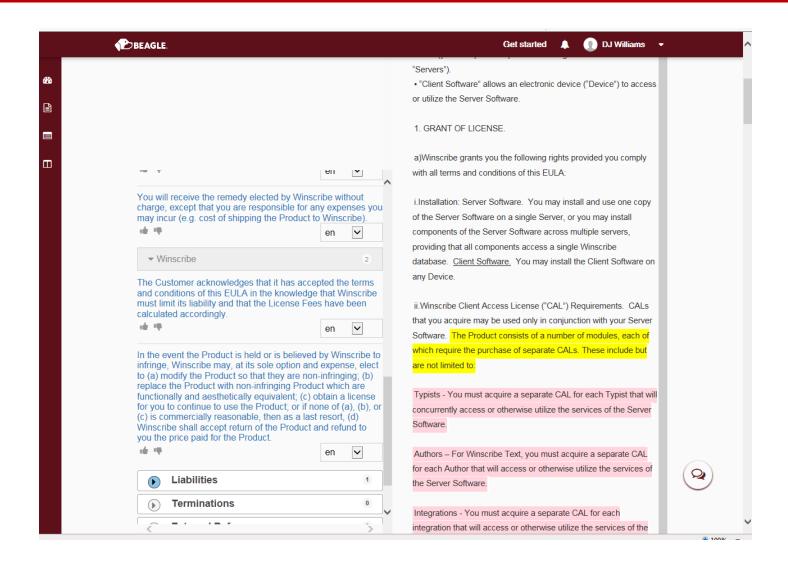


Uses AI to scan and interpret information from all written contracts used in commercial risk assessments and presents it in a central online dashboard that enables clients to assess risk more easily











## "You-know-you-are-being-robbed-blind-but-you-have-no-choice."

14. The Customer acknowledges that it has accepted the terms and conditions of this EULA in the knowledge that Vendor must limit its liability and that the License Fees have been calculated accordingly.

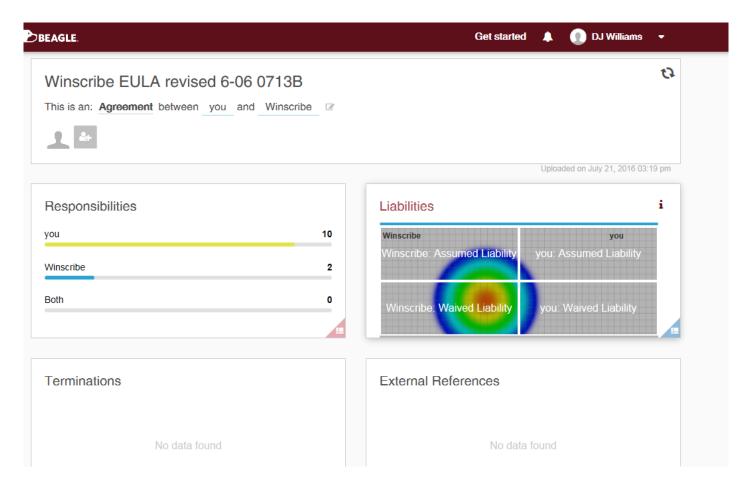


## "If-I-cause-an-Infringement-I'll-do somethings-to-try-fix-it-but—that's-about-it."

§15 In the event the Product is held or is believed by Vendor to infringe, Vendor MAY, at its sole option and expense, elect to (a) modify the Product so that they are non-infringing; (b) replace the Product with non-infringing Product which are functionally and aesthetically equivalent; (c) obtain a license for you to continue to use the Product; or if none of (a), (b), or (c) is commercially reasonable, then as a last resort, (d) Vendor SHALL accept return of the Product and refund to you the price paid for the Product.

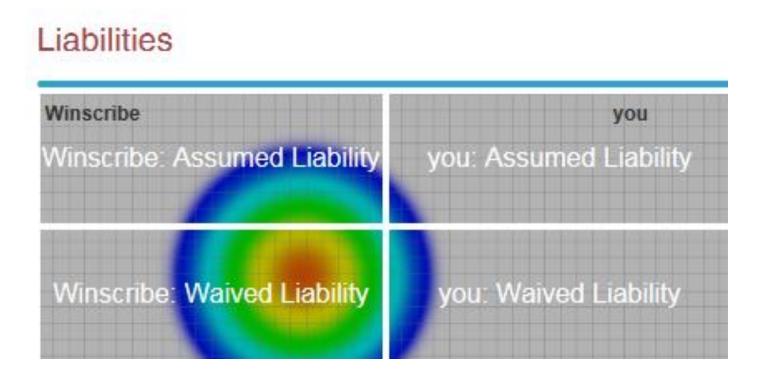


#### Risk Assessment





#### Risk Assessment





#### **IP Searches**

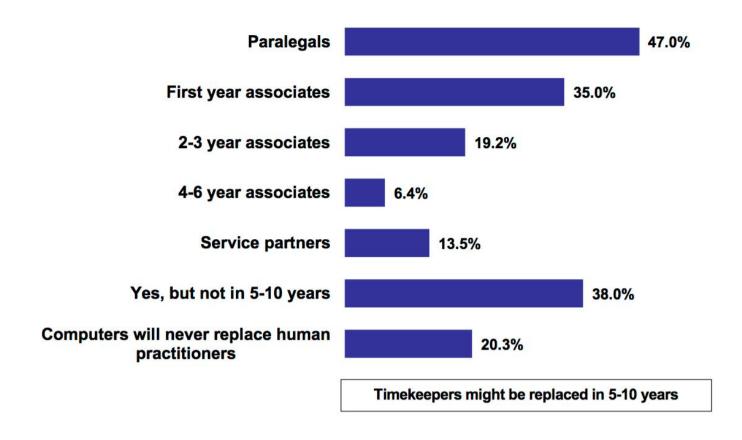


## Clarivate Analytics

Formerly the IP & Science business of Thomson Reuters

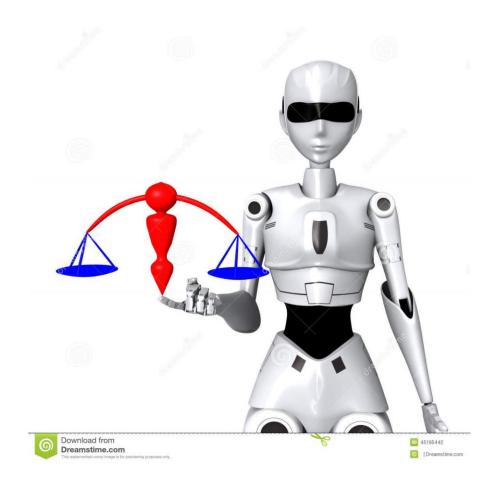


#### What legal jobs are at risk?





## Are you allowed to trust the robot? What if the public trusts the robot?





## Experience tells us one thing...





## I'm glad I'm not young any more!

