Financial institutions
Energy
Infrastructure, mining and commodities
Transport
Technology and innovation
Life sciences and healthcare

NORTON ROSE FULBRIGHT

The Robot Lawyer?

Saskia Mehlhorn
Director of Knowledge Management & Library Services
Norton Rose Fulbright US LLP
September 28, 2017

Contents

Introduction

Will the future look like this?

Meet Ross, the World's First Robot Lawyer

Why Hire a Lawyer When a Robot Will Do?

Artificial intelligence is learning to do legal grunt work.

By Elaine Ou

11 September 22, 2016 2:00 AM

Cheap and efficient. *Photographer: Paul Gilham/Getty Images*

Technologist

The FindLaw Legal Technology Blog

The Latest in 'Technology Will Make Lawyers Obsolete!'

Robot lawyer set to replace 3,000 employees at Sberbank

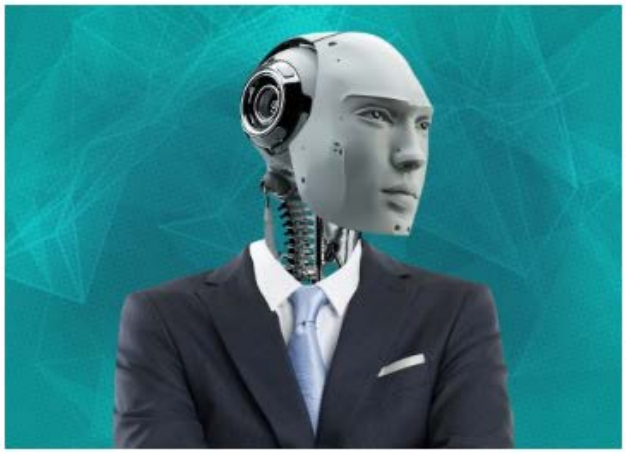
NORTON ROSE FULBRIGHT

Law firms of the future will be filled with robot lawyers

We may need to start rewriting our precious lawyer jokes — smart, time-saving computers are quickly elevating the profession.

Instead of hiring expensive assistants to pore over cases and sort through tickets, law firms are increasingly turning toward artificially-intelligent machines to do the expensive menial jobs instead.

They are creating a future in



Steve Gould/Tech Insider

NORTON ROSE FULBRIGHT

Or more like this?

MARCH 19, 2017

The New York Times

Sorry, a Robot Is Not About to Replace Your Lawyer

The legal profession relies more and more on automation. But fears that it will be automated out of existence are overblown, researchers say. For now.

NYTIMES.COM

ARTIFICIAL INTELLIGENCE, LEGAL TECHNOLOGY, PROMOTED

Artificial Confusion: The (Overblown) Threat Of Artificial Intelligence

The reality is that we are many years away from the rise of artificial superintelligence, especially in the legal industry.

By JAKE HELLER - CASETEXT

Sep 14, 2017 at 12:34 PM

NORTON ROSE FULBRIGHT

The robot lawyers are coming (to help, not to take your jobs)

POSTED MAR 17, 2017 04:10 PM CDT

BY VICTOR LI

IBM Global Chief Information Security Officer Shamla Naidoo and FastCase CEO Ed Walters. Photo by Monica Burciaga.

There is no such thing as robot lawyers, and even if there were, they are not coming to take jobs away from human lawyers.

Instead, lawyers should think about how best to work with and harness the potential of software and artificial intelligence to propel their practices forward while bridging the access-to-justice gap.

Where machine learning and AI fit into the legal research puzzle

Don’t fear AI;
we’re all algorithms anyway

NORTON ROSE FULBRIGHT

Let’s take a step back …

A BRIEF OVERVIEW OF AI

ARTIFICIAL INTELLIGENCE (AI)

A branch of computer science that aims to create intelligent machines that can mimic human decision-making processes.

MACHINE LEARNING (ML)

Machines take data and "learn" for themselves, allowing them to improve at tasks with experience.

DEEP LEARNING (DL)

Multilayered neural networks are exposed to vast amounts of data, training machines to solve any problem which requires "thought."

1956

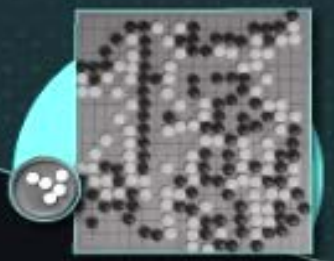
The term Artificial Intelligence is first coined by John McCarthy

1997

IBM's Deep Blue Computer beats Russian chess master Garry Kasparov (AI)

2011

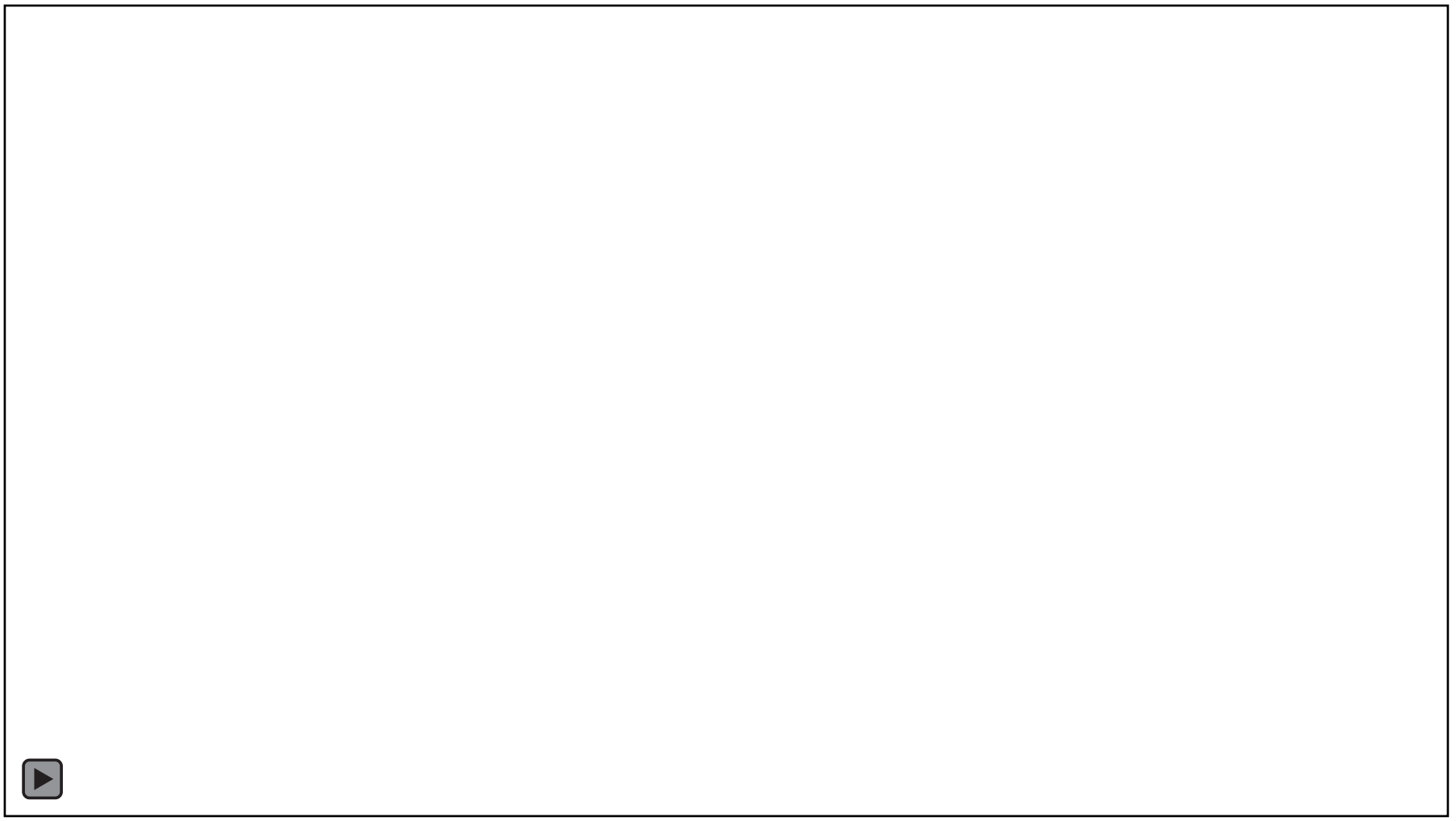
IBM's Watson beats human players on US game show Jeopardy (ML)



2016

Google's AlphaGo beats boardgame Go master Lee Sedol (DL)

Turing test



A BRIEF OVERVIEW OF AI

ARTIFICIAL INTELLIGENCE (AI)

A branch of computer science that aims to create intelligent machines that can mimic human decision-making processes.

MACHINE LEARNING (ML)

Machines take data and "learn" for themselves, allowing them to improve at tasks with experience.

DEEP LEARNING (DL)

Multilayered neural networks are exposed to vast amounts of data, training machines to solve any problem which requires "thought."

[...]

1956

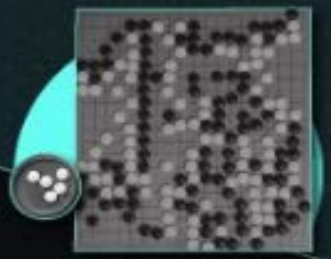
The term Artificial Intelligence is first coined by John McCarthy

1997

IBM's Deep Blue Computer beats Russian chess master Garry Kasparov (AI)

2011

IBM's Watson beats human players on US game show Jeopardy (ML)



2016

Google's AlphaGo beats boardgame Go master Lee Sedol (DL)

Branches of AI

Big Data and predictive analytics

Machine learning

Cloud computing

Natural language processing

Artificial Intelligence

has no agreed-upon definition.

Just like human intelligence, AI has a number of capabilities.

And while AI's ability differs between vendors and the quality of their technology, at its core, it can process data with *"human-like knowledge."*

Economic implications of AI

By 2030, Artificial Intelligence will add
$15.7 trillion to the global economy.

That's roughly:

x13

the size of Australia's GDP

(US$1.21 trillion)

x19

Apple's market capitalization

(US$815 billion)

x186

Bill Gates' net worth

(US$84.6 billion)

x4,132

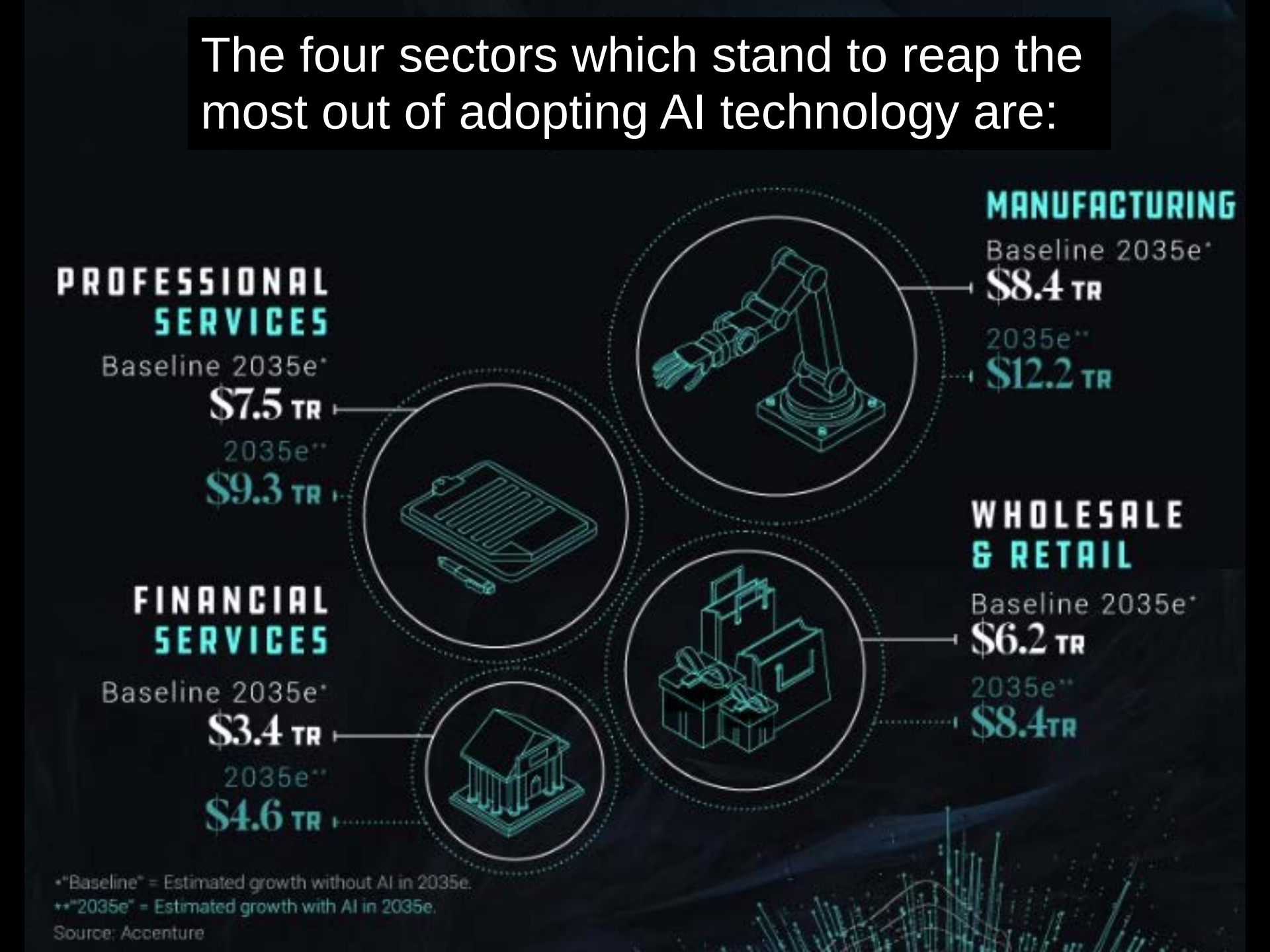
the cost to build the One World Trade Center

(US$3.8 billion)

Source: Forbes NASDAQ

Source: Forbes NASDAQ

The four sectors which stand to reap the most out of adopting AI technology are:



What are we trying to accomplish?

Desired accomplishments

Predict case outcomes

Predict legal costs

Find relevant documents

Streamline contract terms

Predict case outcomes

" That lawsuit you see in my future . . which end of it am I on ? "

Predict legal costs

Assumption:

- No idea how the litigation develops
- No knowledge how a deal between two parties will progress and what resource might have to be added
- No certainty that the product won’t face any liability issues

Find relevant documents

Streamline contract terms

Assumption:

- What we do is so unique it can’t be automated

Commercial applications in the legal field

Legal applications

Machine Learning and data mining

Predictive Analytics

Lawbots to automate minor and repetitive legal tasks

Legal reasoning

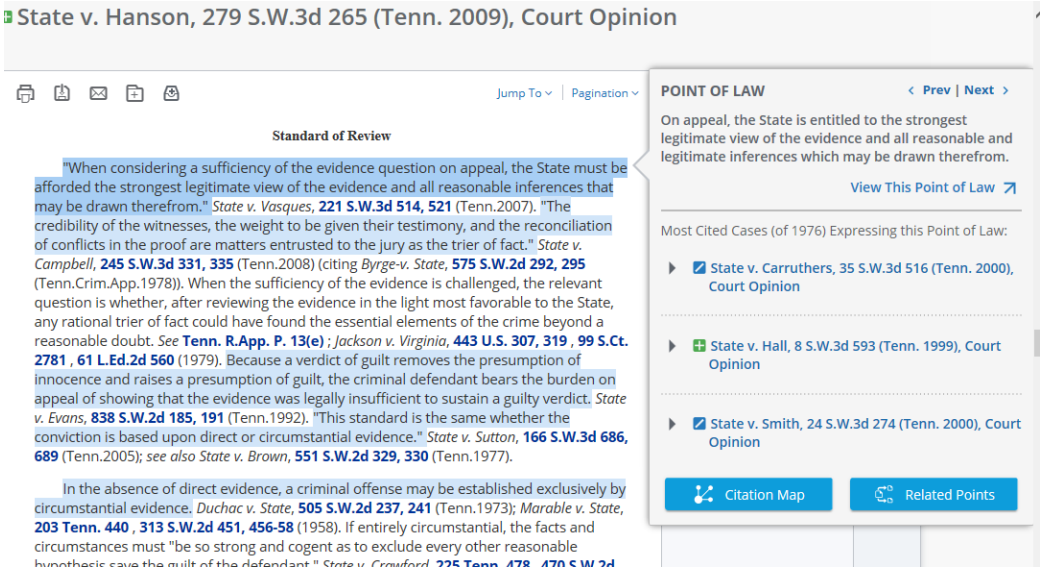
BloombergLaw – Points of Law

What it does

Points of Law helps legal researchers quickly find language critical to a court's reasoning and to support their legal arguments.

As a researcher scrolls through a court opinion, it highlights the essential language in the opinion, making it easier to browse through the key discussion points and enabling the researcher to more quickly get the gist of the key holdings.

How it works



NORTON ROSE FULBRIGHT

Brainspace

What it does

Brainspace is a collaboration tool that is based on a large-scale machine learning platform.

Brainspace rapidly ingests millions of pages of unstructured text, dynamically learning without taxonomies or ontologies.

The learned content is surfaced through advanced, interactive visualizations, giving the full power of Brainspace to every user.

How it works

NORTON ROSE FULBRIGHT

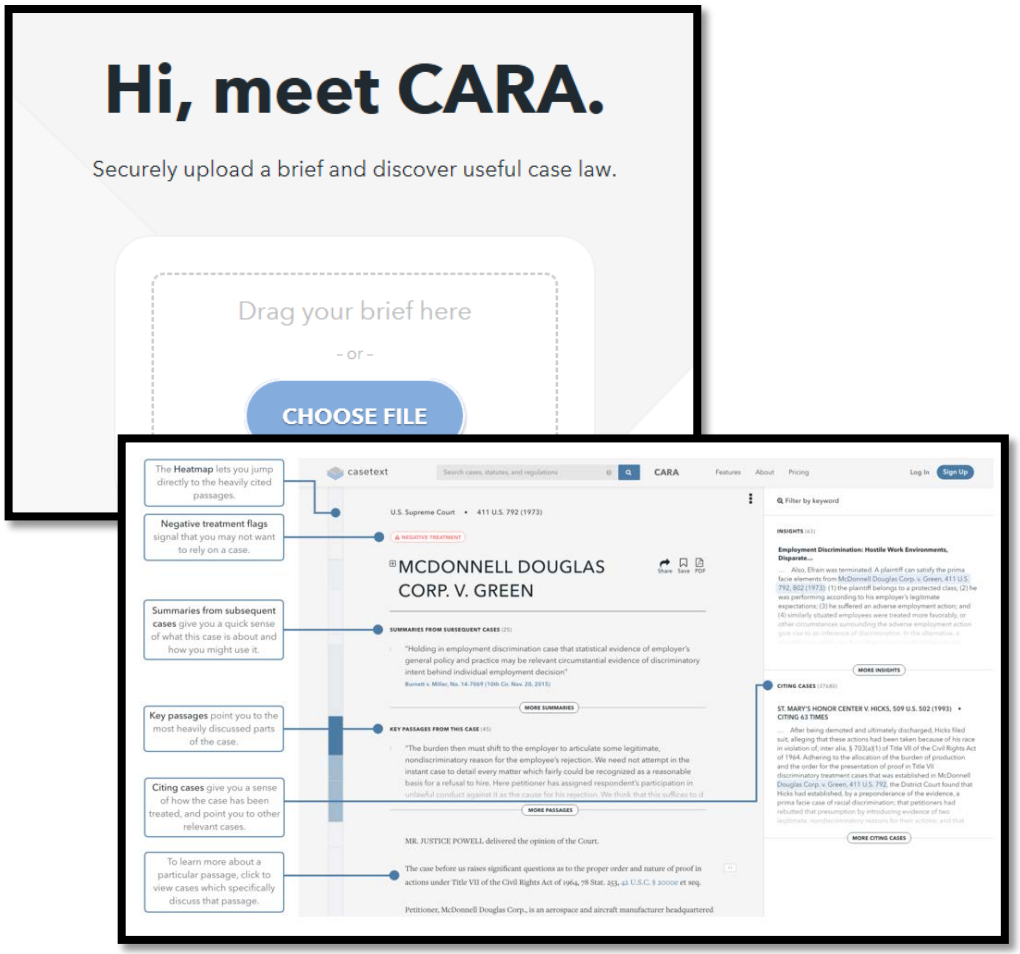
Casetext

What it does

CARA (Case Analysis Research Assistant), by Casetext, reviews the full contents of the uploaded brief, identifying and analyzing dozens of factors, including the cited legal authority and topics discussed in the brief.

CARA then instantly searches Casetext's database of millions of legal documents and hundreds of thousands of articles published by practicing lawyers to find similar, on-point cases, using a proprietary algorithm developed by their data scientists.

How it works



NORTON ROSE FULBRIGHT

Chatbots

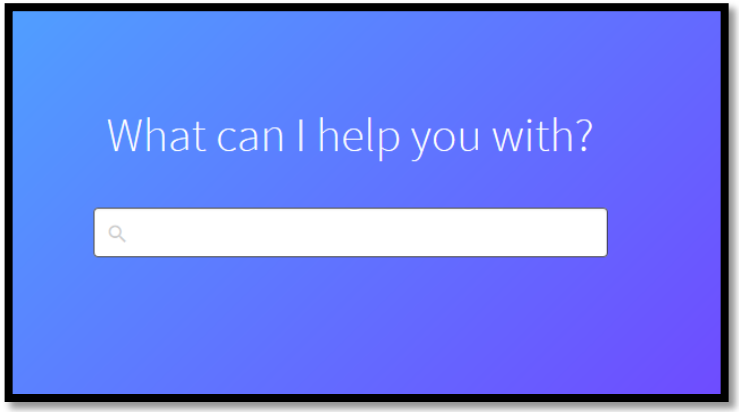
What is a chatbot

A chatbot is a conversational computer program, such as virtual assistance.

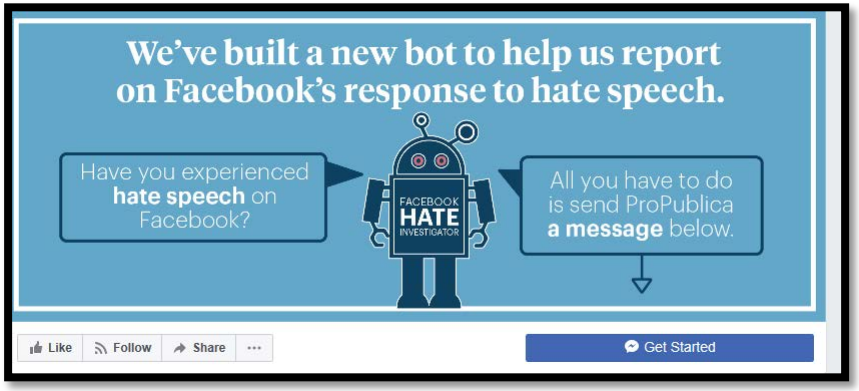
It can be used for customer service requests, information acquisition or promotion of a particular product.

Examples of chatbots

DoNotPay – inventor calls it “the world’s first robot lawyer”, it helps defeat parking tickets:



ProPublica – a Facebook chatbot:



NORTON ROSE FULBRIGHT

Fastcase

What it does

Fastcase was originally developed as an inexpensive case pull alternative to Westlaw and Lexis.

It has since grown into an advanced research tool with the connection to HeinOnline and the ability to customize the platform using a firm's data.

As a member of the Texas State Bar, access is available at no additional costs.

How it works

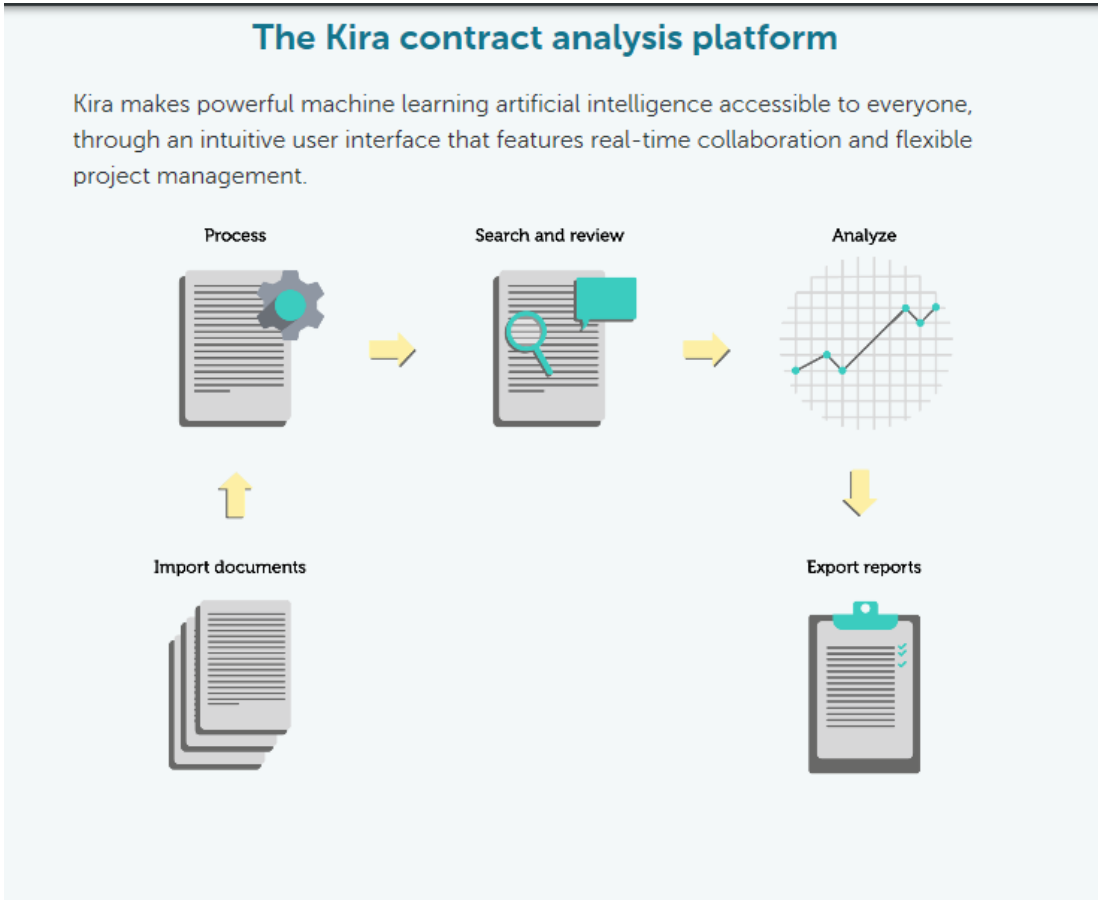
NORTON ROSE FULBRIGHT

Kira

What it does

Kira helps complete contract review more quickly by automatically highlighting and extracting relevant contract language in virtually any file format.

How it works



NORTON ROSE FULBRIGHT

Lex Machina

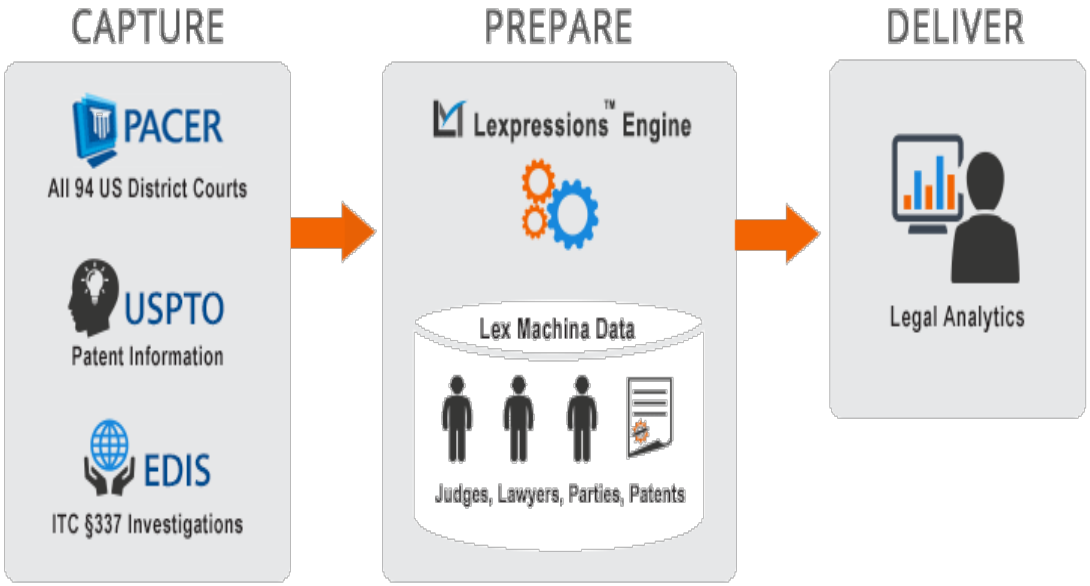
What it does

Lex Machina captures data by crawling a number of legal databases and then its proprietary Natural Language Processing and Machine Learning engine.

Lex Machina then delivers Legal Analytics® to users through its web application.

LexMachina is part of LexisNexis.

How it works



NORTON ROSE FULBRIGHT

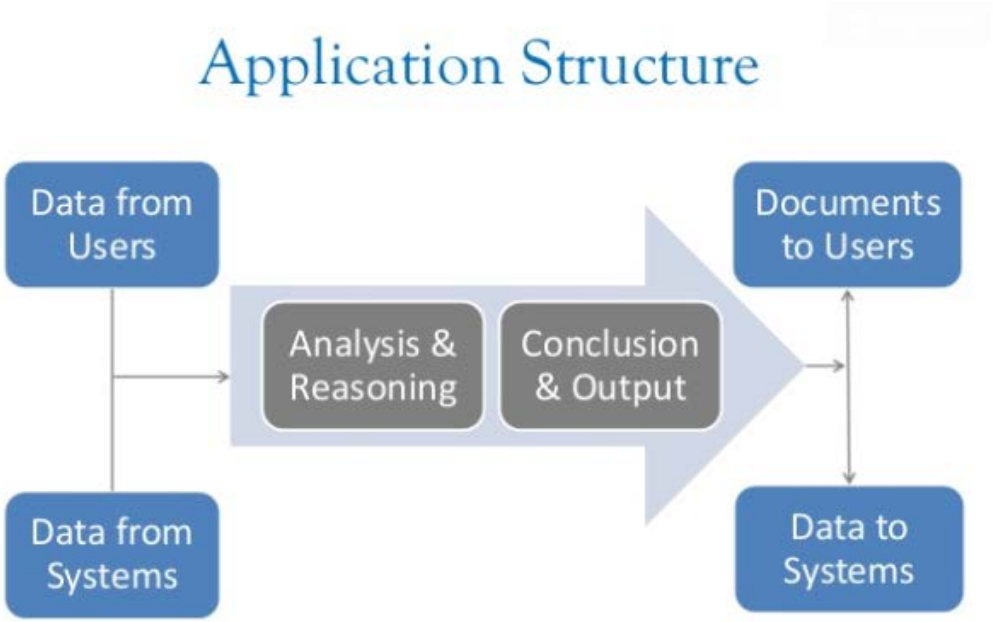
Neota Logic

What it does

Neota Logic's provides a no-code approach, which allows non-programmers to develop, test and implement applications.

These applications are capable of addressing rules-based functions, complex reasoning, document logic and process workflow.

How it works



NORTON ROSE FULBRIGHT

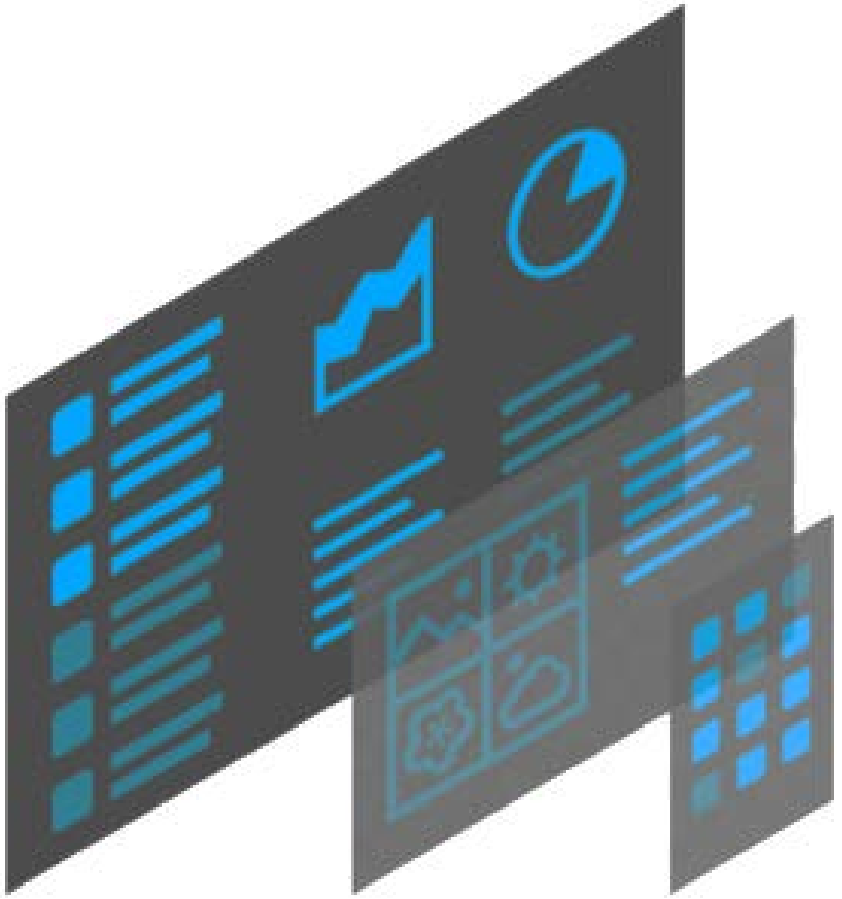
NSight

What it does

NSight is based on Sapling Data's software development suite.

It provides a collaborative information management and analysis platform to assist clients with collecting, enriching, analyzing and manipulating public and private data sets.

How it works



RavelLaw

What it does

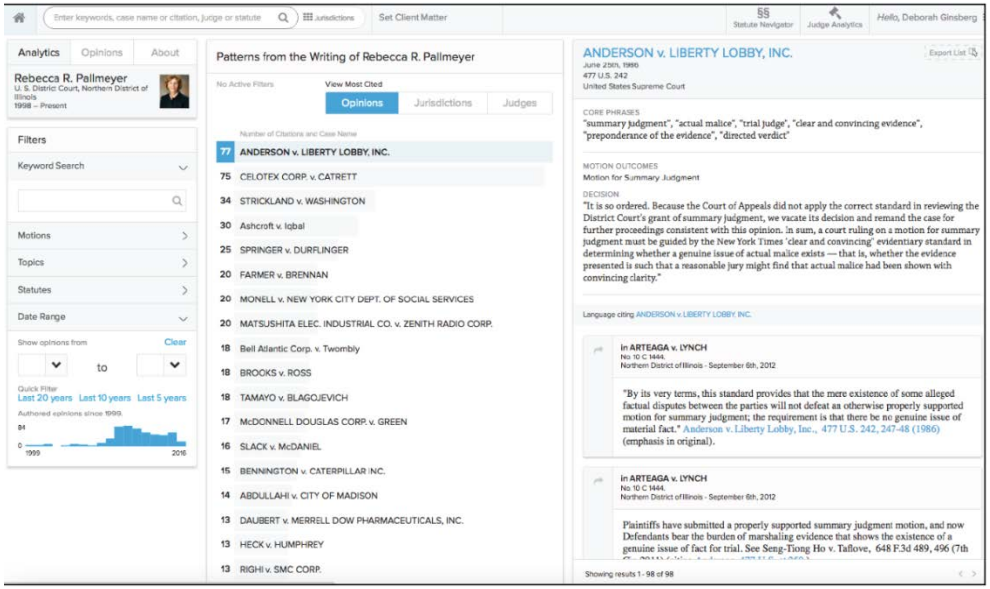
Ravel Law is a legal search, analytics, and visualization platform.

Ravel enables lawyers to find, contextualize, and interpret information that turns legal data into legal insights.

At this time, the platform offers judge and case analytics and search visualization.

RavelLaw was recently acquired by LexisNexis

How it works



NORTON ROSE FULBRIGHT

Ross

What it does

ROSS is built upon Watson, IBM's cognitive computer and mines facts and conclusions from any given number of unstructured data in form of text documents within seconds.

ROSS also monitors the law around the clock to notify users of new court decisions that can affect a case. The program continually learns from the lawyers who use it to bring back better results each time.

Currently, Ross is only available in the area of bankruptcy law but the company is working on expanding its offering's to other practice areas.

How it works

Conclusion

Is The Concern Artificial Intelligence — Or Autonomy?

Getty Images/iStockphoto

NORTON ROSE FULBRIGHT

NORTON ROSE FULBRIGHT

Sources

Preparing for artificial intelligence in the legal profession

_https://www.lexisnexis.com/lexis-practice-advisor/the-journal/b/lpa/archive/2017/06/07/preparing-for-artificial-intelligence-in-the-legal-profession.aspx

A.I. Is Doing Legal Work. But It Won't Replace Lawyers, Yet.

https://www.nytimes.com/2017/03/19/technology/lawyers-artificial-intelligence.html?_r=1

Allen & Overy: An Old Firm With A New Strategy

https://www.forbes.com/sites/markcohen1/2017/04/10/allen-overy-an-old-firm-with-a-new-strategy/#5c9800547250

Fuse - Tech innovation space

http://www.allenovery.com/advanceddelivery/fuse/Pages/default.aspx

This Silicon Valley start-up wants to replace lawyers with robots

https://www.washingtonpost.com/news/innovations/wp/2017/09/14/this-silicon-valley-startup-wants-to-replace-lawyers-with-robots/?utm_term=.1816f6fb8db3

JPMorgan Software Does in Seconds What Took Lawyers 360,000 Hours

https://www.bloomberg.com/news/articles/2017-02-28/jpmorgan-marshals-an-army-of-developers-to-automate-high-finance

Can Robots Be Lawyers? Computers, Lawyers, and the Practice of Law

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2701092

Harnessing automation for a future that works

https://www.mckinsey.com/global-themes/digital-disruption/harnessing-automation-for-a-future-that-works


NORTON ROSE FULBRIGHT

Disclaimer

NORTON ROSE FULBRIGHT