Annual Meeting of the State Bar of Texas - Adaptive Lawyer Track - June 14, 2019 - Austin, TX

AI and the
Legal Profession

John Browning
Ronald Chichester

Google Duplex

https://www.youtube.com/watch?v=D5VN56jQMWM

Automation

First Wave of Automation

- Gave us *standardized* processes for human laborers

- the Production Line

- Steps in the overall process:

  - Measured

  - Optimized

  - Standardized

- Achieved great efficiencies

- Example: Ford Motor Co.

Second Wave of Automation

- Gave us *automated* processes for machines

- IT enabled automation of back-office tasks

- Emerged in the 1970's and peaked in the 1990's

- "Business Process Reengineering" (BPR) initiative

- Example: WalMart
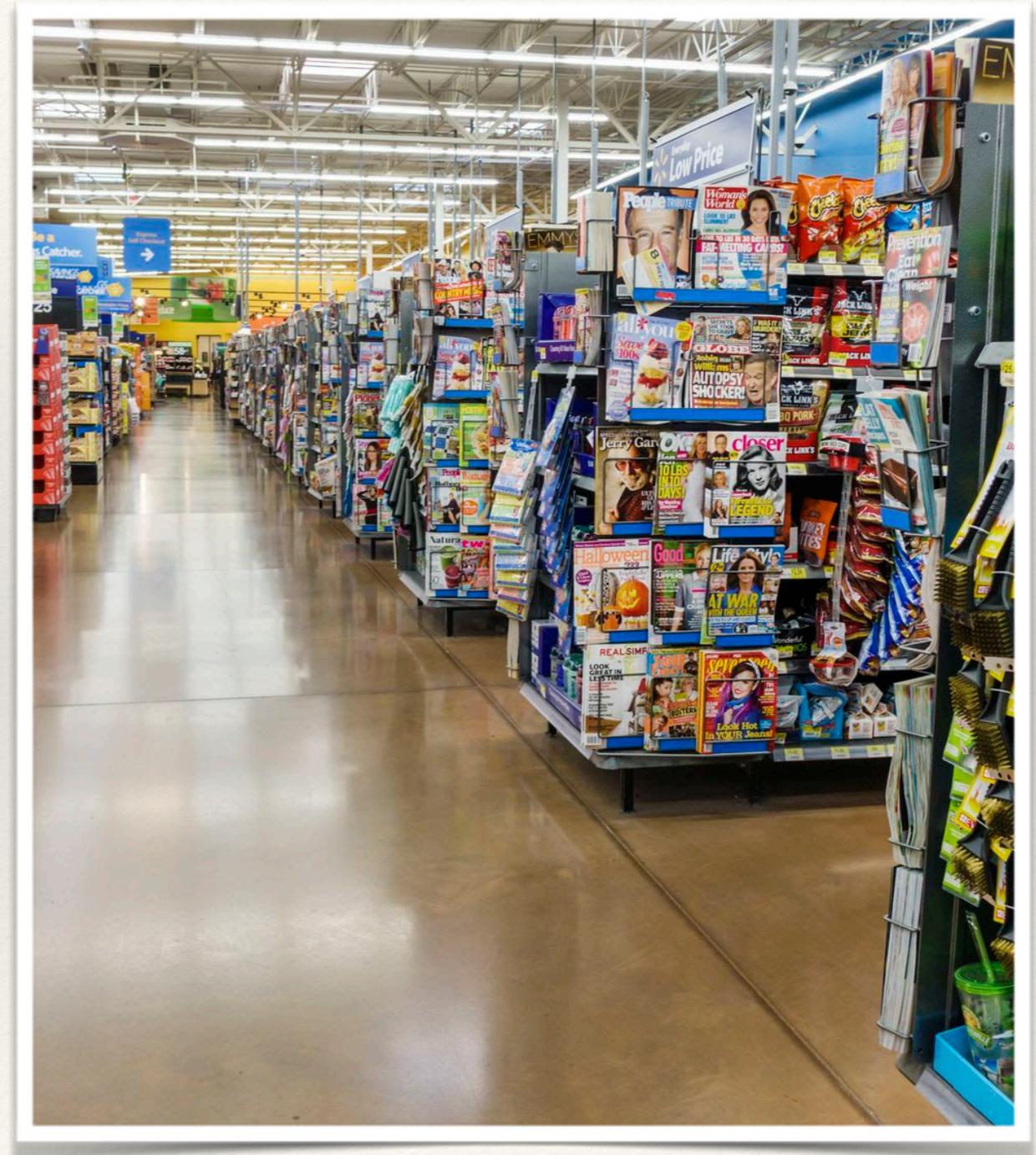
Third Wave of Automation

- Gave us *adaptive* processes that require humans & machines

- Built upon the first two waves

- Driven by real-time data, available through a network

- **Not** standardized or routine

- Processes are constantly changing

- Example: Uber driver using Google Maps
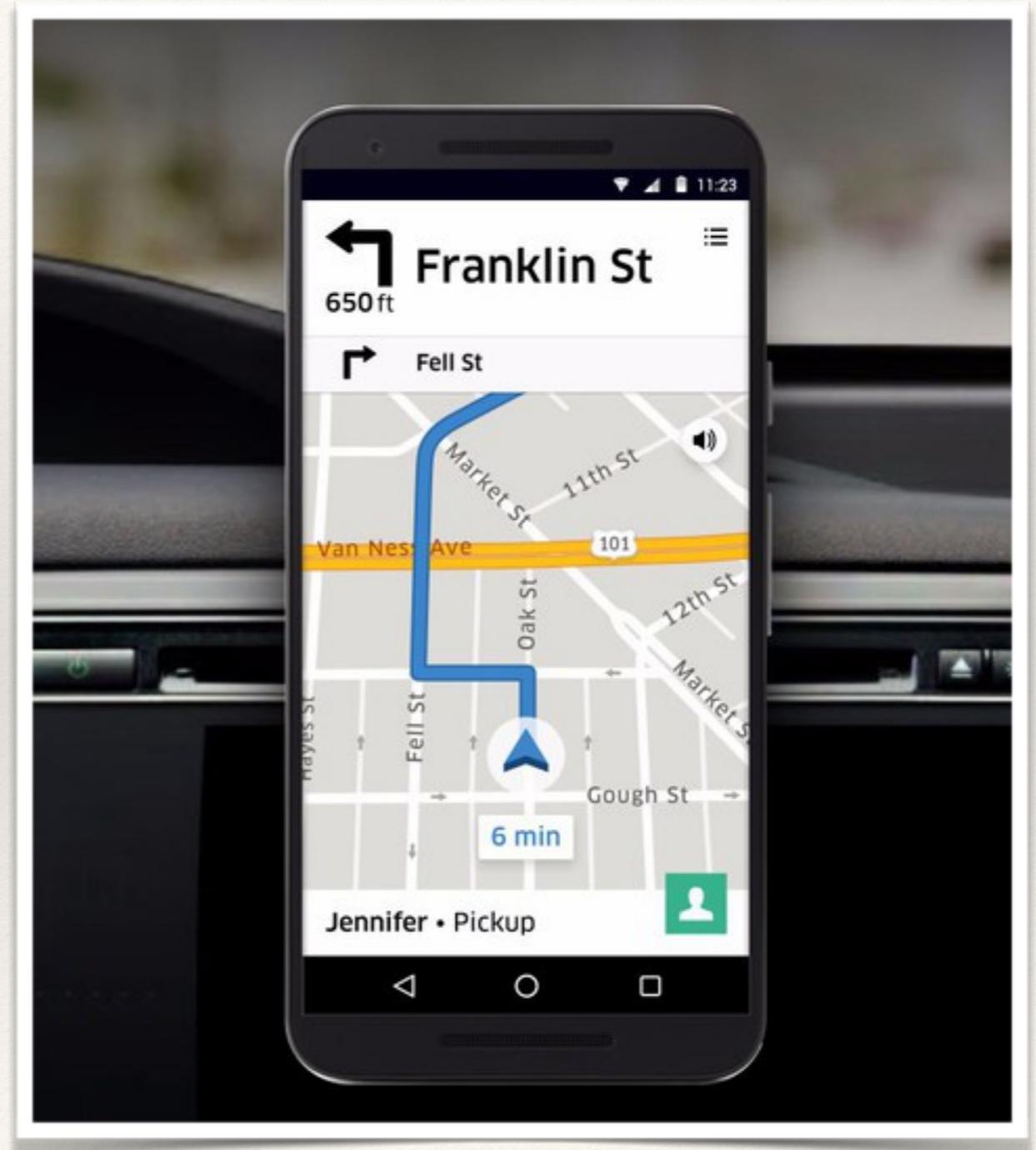
Third Wave of Automation makes extensive use of *Artificial Intelligence*

What is Artificial Intelligence?

First thing...

AI is **not** monolithic

Merriam-Webster

SINCE 1828

artificial intelligence

DICTIONARY | THESAURUS

artificial intelligence *noun*

Definition of *artificial intelligence*

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

Examples of *artificial intelligence* in a Sentence

// a robot with *artificial intelligence*

Recent Examples on the Web

// Technologies such as *artificial intelligence* and virtual reality would allow some crew members to work from shore, operating key sections of ships from thousands of miles away.

— Kyle Mizokami, *Popular Mechanics*, "Future Warships Could Be Sailed Remotely with Artificial Intelligence, Virtual Reality," 27 Nov. 2018

AI is **<u>not</u>** an *algorithm*

Rather, AI is an algorithm that is modified by *experience*

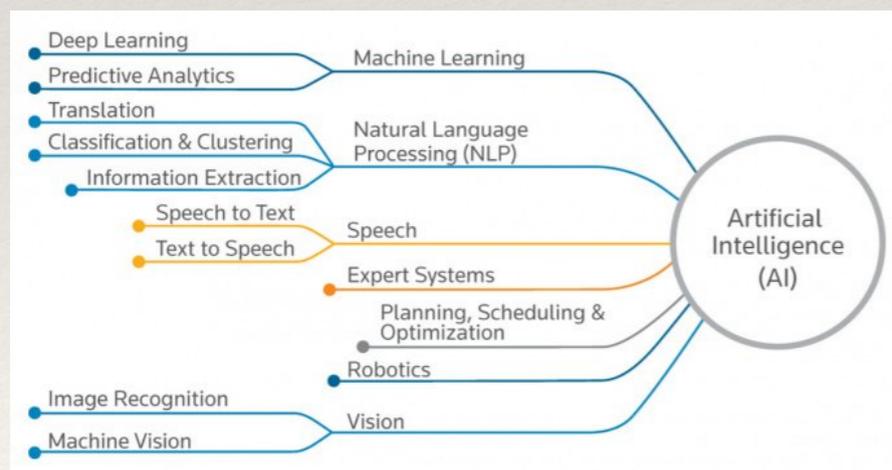… and the modifications of the AI may be *continuous* over time

aka, Machine Learning

… and the modifications may be *unique* to a given instance of AI

… and that uniqueness can be *owned* by an entity
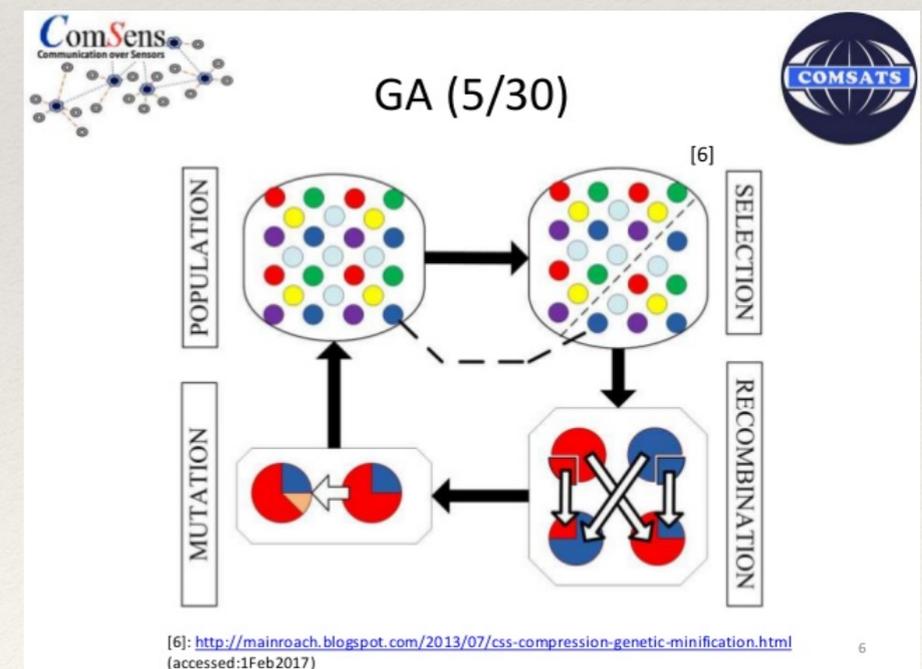
Two Main Types of AI

Predictive

Creative

Neural Networks

Genetic Algorithms

Two Main Types of AI

Predictive

Neural Networks

- **How a Judge might rule**
- **Is a document responsive?**

Creative

Genetic Algorithms

- **Find the best cause of action**
- **Find the best business model**

ARTIFICIAL INTELLIGENCE IN COMMERCE MARKET MAP

REAL-TIME PRODUCT TARGETING

RK Reflektion · DYNAMIC YIELD · AntVoice

VISUAL SEARCH

heuritech · SEEZ · GROKSTYLE
STAQU Perceiving the future · ViSENZE™ · CORTEXICA VISUALLY EMPOWERING BUSINESS

CONVERSATIONAL COMMERCE

CONVERSABLE. · satisfi · Kip
MONA · niki.ai · deepomatic

SIZING & STYLING

FINDMINE · Invertex · BOLD METRICS

INTEGRATED ONLINE & IN-STORE ANALYTICS

PLEXURE · manthan

REAL-TIME PRICING & INCENTIVES

granify · personali
ZenClerk

LOCATION-BASED MARKETING & ANALYTICS

GreyJean Technologies · INVISIBLE MEDIA
databerries

NATURAL LANGUAGE SEARCH

ADDSTRUCTURE · Twiggle

IN-STORE VISUAL MONITORING

COSY · Trax image recognition
eversight™

PREDICTIVE MERCHANDISING

BlueYonder · celect

MULTICHANNEL MARKETING

UNATA · thirdshelf · SIDECAR
emarsys · Appier · JETLORE THE PREDICTION PLATFORM™
tinyclues · smarterHQ
Crobox · CrossCues · AGIL ONE Customer Cloud

CBINSIGHTS

# REALITY: THE EVOLUTION OF ARTIFICIAL INTELLIGENCE
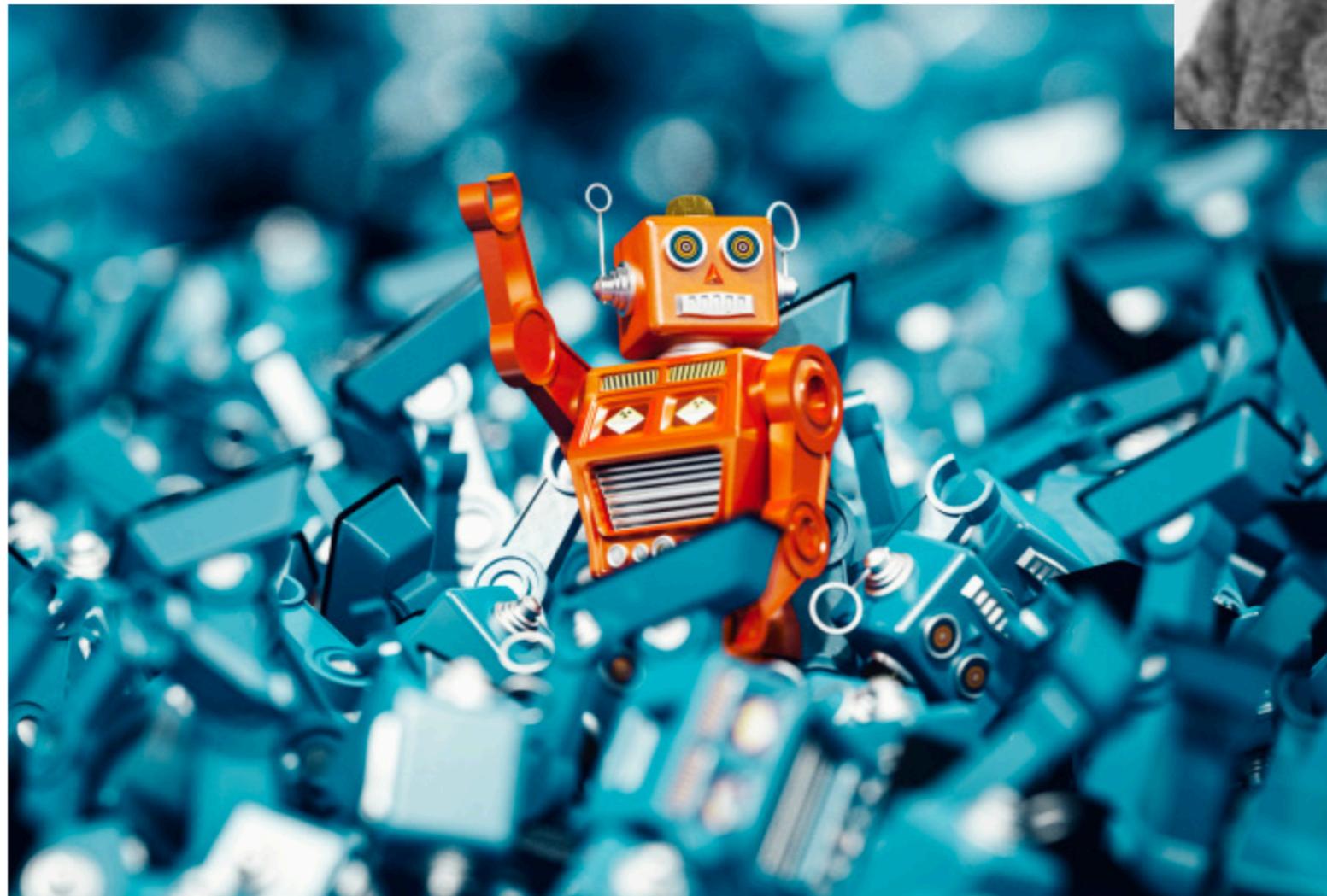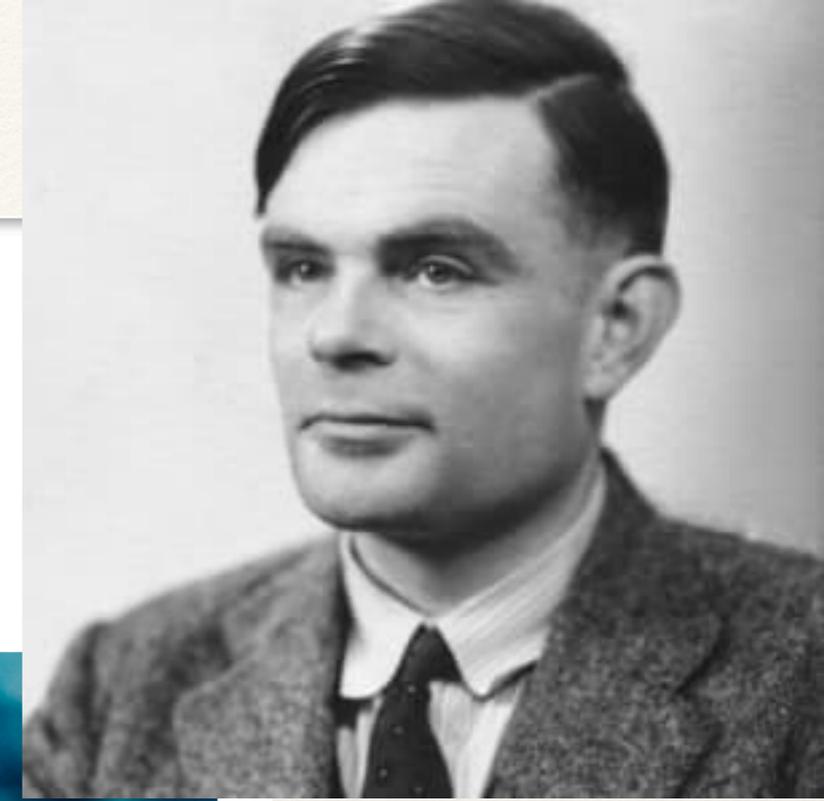
Getty Images

Turing test

During the Turing test, the human questioner asks a series of questions to both respondents. After the specified time, the questioner tries to decide which terminal is operated by the human respondent and which terminal is operated by the computer.

■ QUESTION TO RESPONDENTS   ■ ANSWERS TO QUESTIONER
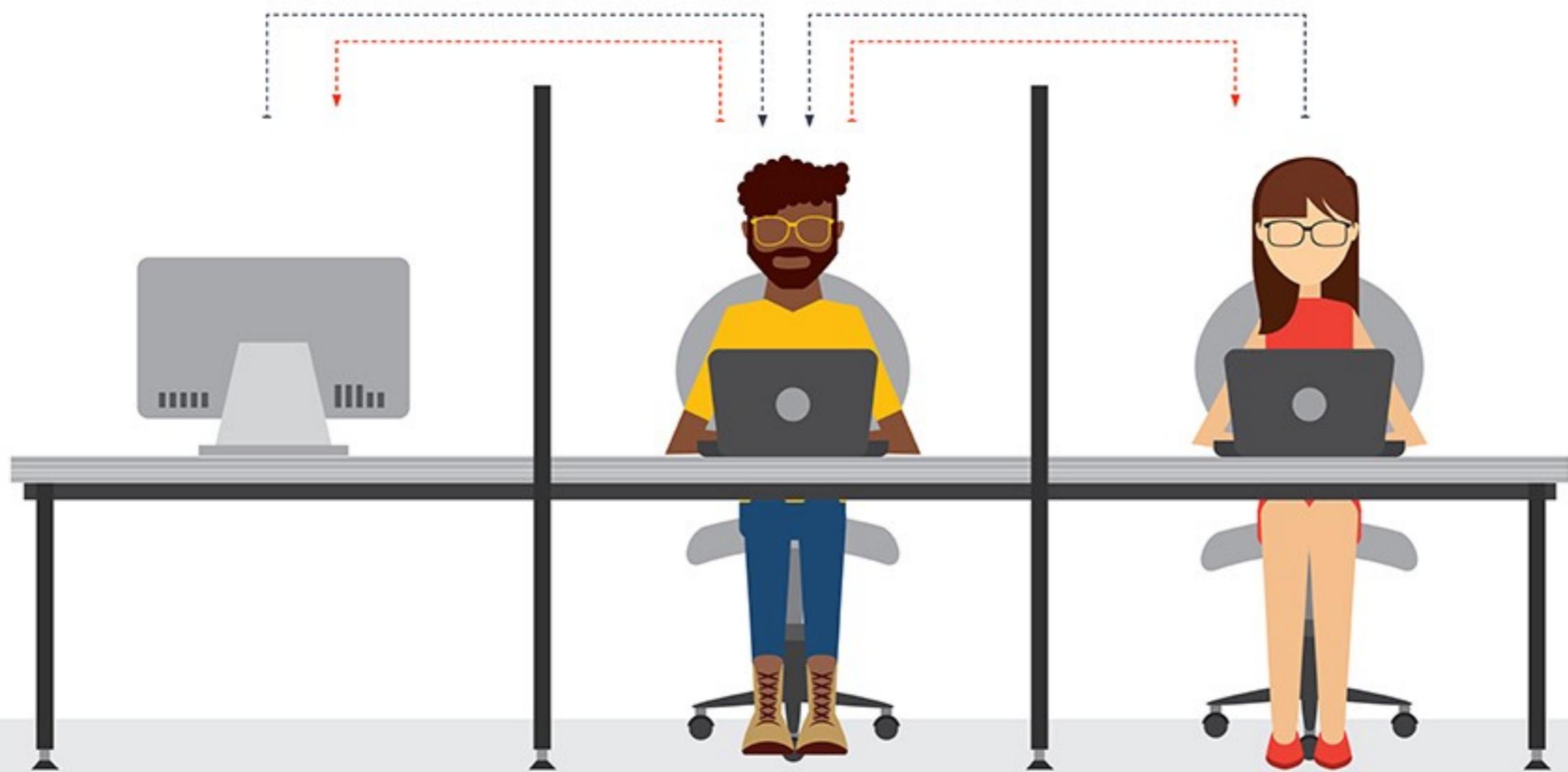
Computer respondent

Human questioner

Human respondent

https://searchenterpriseai.techtarget.com/definition/Turing-test
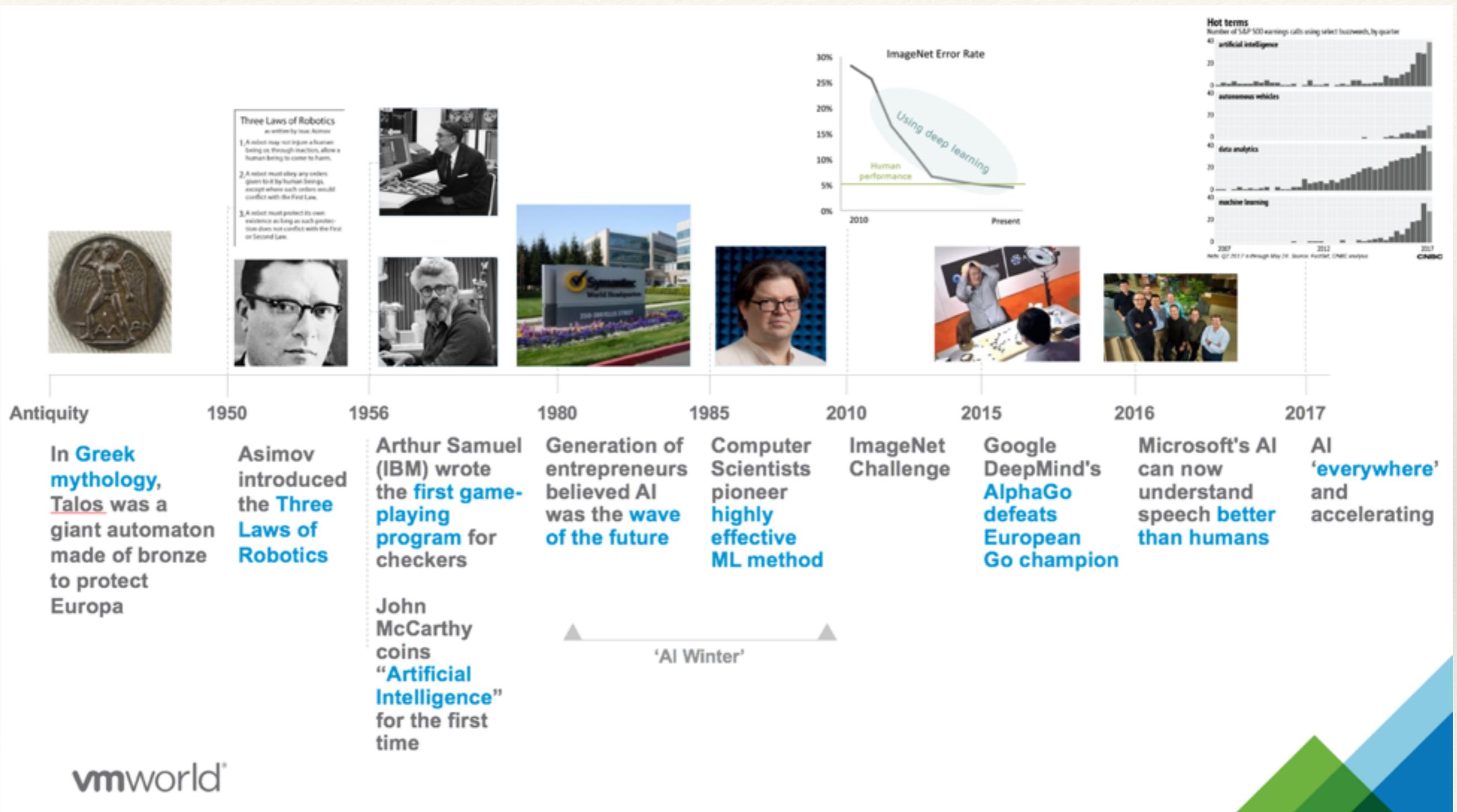
AI is really cool!

But the thing that people forget...

… is that they are only computers.

Theodore Roszak

Computers are only good at two things:

Storing and retrieving large amounts of information; and Performing repetitive tasks
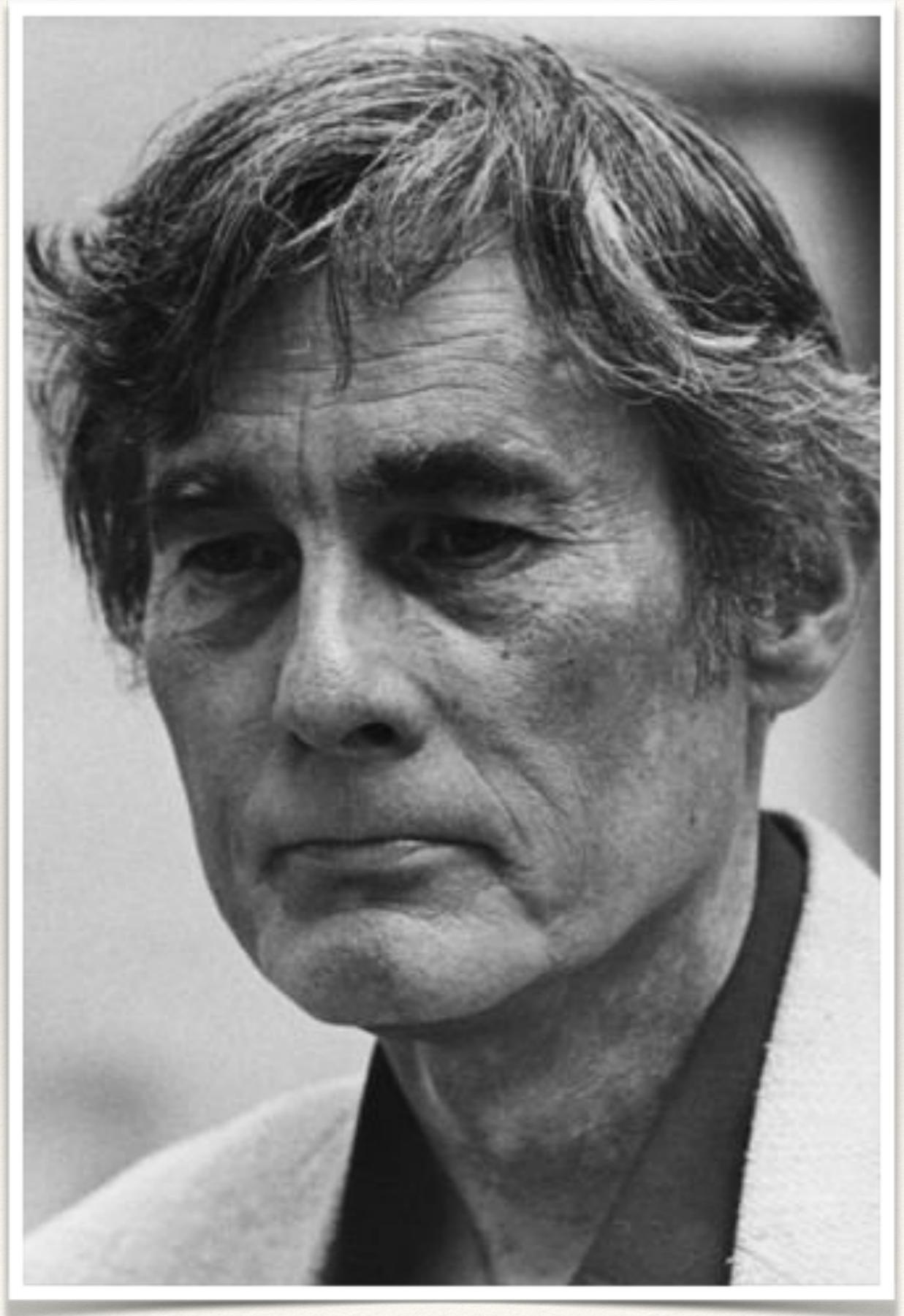
If your task doesn't involve one or both of those, then **don't** use a computer

AI does both

So does the Legal Profession

So what is the difference?

What is the single word in the English language that illustrates why the legal profession is even **tolerated**?

Ambiguity

AI doesn't handle ambiguity well

"Thank you"

So are lawyers off the hook?

◆ No!

(Right now…)

AI is only having ancillary effects

<more examples>

Creative

1461187725-f00e0aa8-68b8-4055-92c0-b74346ad03c3

A wearable electric device includes a main body with a circuit module inside and at least a detachable battery strap with a battery module inside, and the main body and the detachable battery strap are detachably fastened together. The test device includes an addressable memory. Responsive to one of the plurality of processes attempting to access a late binding object by its identifier, a determination is made as to which late binding object is associated with the process. The composition may be applied to soil to control a population of a deleterious organism. Each of the strips is radially offset from one another. In the sealing step, long side edges of the battery case are crimped by a forming surface having a rounded cross section, and arc-shaped edges connecting both long side edges are crimped by a flat forming surface.

YouTube

Search: chatbot lawyer

BEST OF YOUTUBE

Music

Sports

Gaming

Movies

TV Shows

News

Live

Spotlight

360° Video

Browse channels

Sign in now to see your channels and

⚙ **FILTER**

This Stanford Students 'Robot Lawyer' Can Get You Out Of Parking Tickets (HBO)

VICE News ✓ • 47K views • 2 years ago

19-year-old Stanford student Joshua Browder has overturned more than 190,000 parking tickets with the help of his artificially ...

3:49

Lawyer Chat Bots - Customer Chat on Website - DustinSanchezTV.com

Dustin Sanchez • 206 views • 1 year ago

https://www.dustinsancheztv.com/lawyer-chatbots Use the Customer Chat feature on ManyChat to convert website visitors into ...

10:37

Chatbot Lawyer Overturns 160,000 Parking Tickets

David Pakman Show ✓ • 6.3K views • 2 years ago

--An artificial-intelligence lawyer called Chatbot has successfully contested 160,000 parking tickets across London and New ...

2:52

Meet the Robot Lawyer Fighting Fines, Fees, and Red Tape

ReasonTV • 25K views • 6 months ago

Joshua Browder is trying to cut red tape and upend the legal services industry with DoNotPay, a company that's running a "denial ...

CC

8:16

There are some opportunities…

AMERICAN BANKER

All Sections ▾

BankThink Fair-lending laws haven't caught up to AI

By
Aaron D. Klein

Published
May 01 2019, 10:19am EDT

More in
Artificial intelligence
Machine learning
Consumer lending
Policymaking

Print 🖶   📄 Reprint

A version of this post was previously published on the Brookings website as part of a series on artificial intelligence. It has been edited for length.

Banks have been in the business of deciding who is eligible for credit for centuries. But in the age of artificial intelligence, machine learning and big data, digital technologies have the potential to transform credit allocation in positive as well as negative directions.

Given the mix of possible societal ramifications, policymakers must consider what practices are and are not permissible and what legal and regulatory structures are necessary to protect consumers against unfair or discriminatory lending practices. The country's lending laws will have to be updated to keep pace with these technological developments, as they

… and some downsides

Internet of Things   AI & ML   Podcast   Audio Articles   Insights
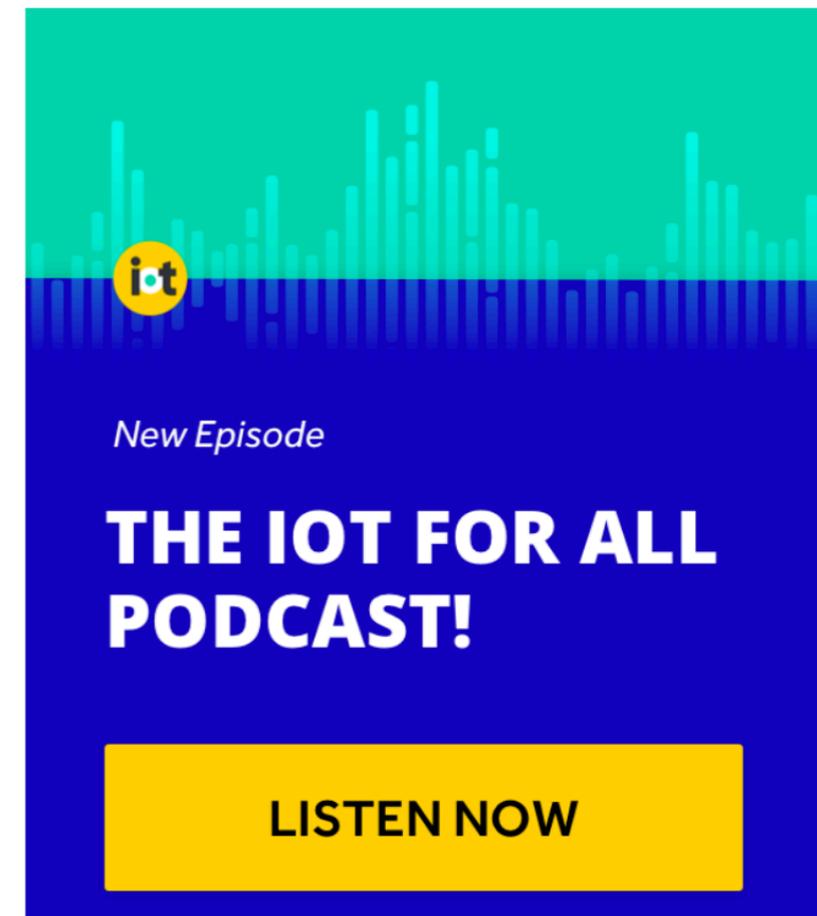
The Impact of Artificial Intelligence – Widespread Job Losses

No question, the impact of artificial intelligence and automation will be profound. But we need to prepare for a future in which job loss reaches 99%

By **Calum McClelland** - August 17, 2018   👁 152588
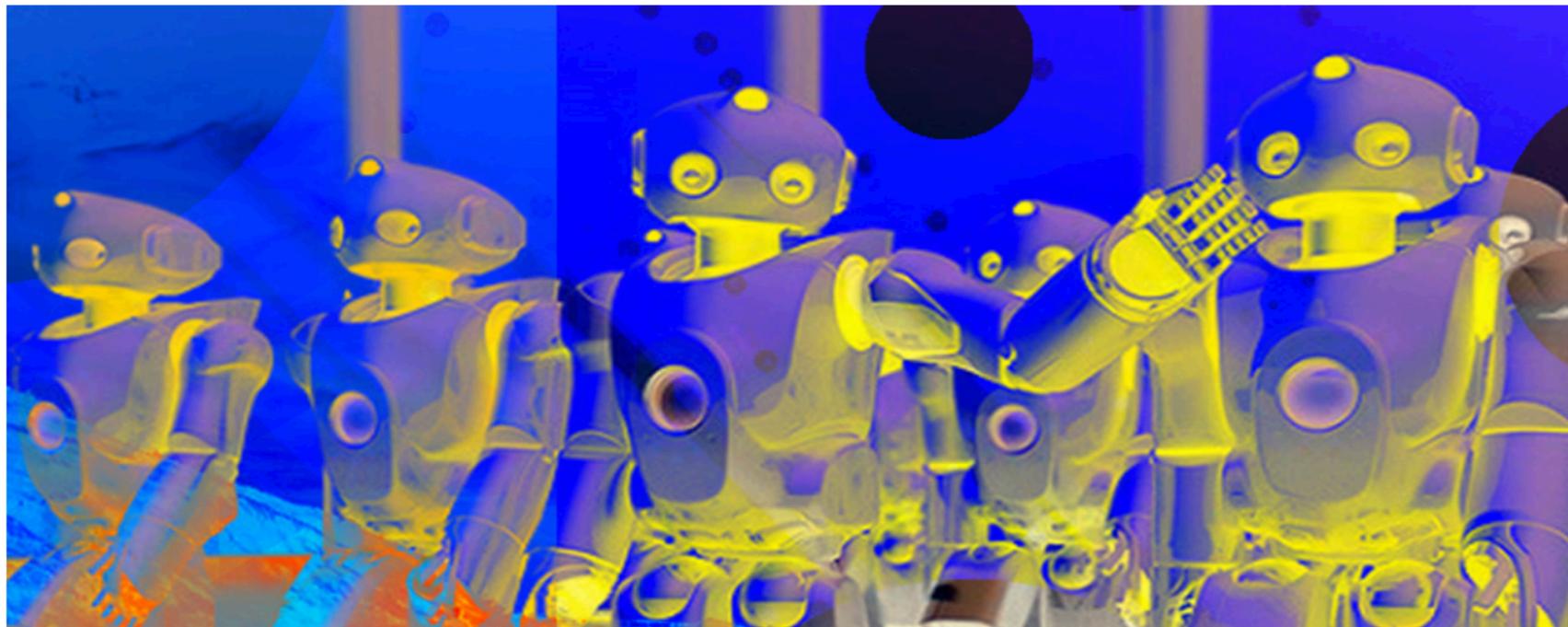
New Episode

THE IOT FOR ALL PODCAST!

LISTEN NOW

https://www.iotforall.com/impact-of-artificial-intelligence-job-losses/

THE CONVERSATION

Academic rigor, journalistic flair

Search analysis, research, academics...

Arts + Culture   Economy + Business   Education   Environment + Energy   Ethics + Religion   Health + Medicine   Politics + Society   **Science + Technology**

Minimum wage hike ignores impact of Artificial Intelligence

June 20, 2017 4.58pm EDT   Updated June 26, 2017 6.18pm EDT

https://theconversation.com/minimum-wage-hike-ignores-impact-of-artificial-intelligence-78864

Consensus is Mixed

Some scholars (like Richard Suskind) see AI taking many jobs

Others (like Dana Remus) foresee only a modest (40%) impact

Suskind sees AI affecting the very foundation of the profession

Remus doesn't see AI advancing much farther than the present

AI has an Achilles heel

❖ AI is capital

   ❖ so requires low interest rates

   ❖ and requires cheap labor

❖ AI requires data - *LOTS* of data

❖ AI requires (*lots* of) training

❖ Attorneys make great trainers

   ❖ Attorneys will have to be exploited for AI training

Legal Profession has an Achilles heel

- ❖ (Human) lawyers can only service/bill one client at a time

- ❖ (Human) lawyers cannot practice as part of a standard (non-professional) corporation

- ❖ Only humans can "practice" law, so AI can't commit unauthorized practice of law

AI Advantages

❖ AI can service multiple clients simultaneously

❖ AI isn't human so doesn't need a law license to provide advice or services

❖ AI is capital, so corporations can develop it, own it, and exploit it (not as a law firm)

❖ AI can communicate/learn from other AI constantly

❖ AI doesn't have human needs

Human Advantages

- ❖ Humans handle ambiguity and complexity more easily than AI

- ❖ Humans were "first out of the starting block"

  - ❖ AI isn't nearly as pervasive as it soon will be

  - ❖ Most infrastructure is human-only

- ❖ Many humans have a bias against machines

Remember – Professions

- Professions confer privilege that costs society money
  - Only doctors and lawyers allowed to do some things
- So why does society tolerate professions?
  - Layman's lack of knowledge
  - Division of labor

Remember — Professions

❖ Professions confer privilege that costs society money

    ❖ Only doctors and lawyers allowed to do some things

❖ So why does society tolerate professions?

    ❖ Layman's lack of knowledge   **<— Internet + AI**

    ❖ Division of labor   **<— Automation**

… but AI isn't the biggest threat

The Bigger Threats

❖ Erosion of client base b/c of AI

❖ Distributed Autonomous Org.

❖ Domain Specific Languages

   ❖ Eliminates ambiguity

   ❖ Commoditizes language

   ❖ Enables automation

   ❖ Facilitates use of AI

❖ **Law inherently lags technology**

<corporate use of AI in Law>

(… that is used by non-lawyers)

SPARQA
LEGAL

Guidance   About   Contact   Pricing

Register Now   **Log In**

Your Digital Lawyer

Expert answers and customisable documents – trusted by 5,000+ businesses

Enter your email address   **Get free trial**

14 day free trial - no credit card required

Privacy and Cookies policy	Website Terms of Use	Non Disclosure Agreement	Employment Contract	Terms and Conditions

| Staff Handbook | Shareholders Agreement | Consultancy Agreement | Email Footer and Disclaimer | Click here for |

Ailira

Law Library ▾   User guide   Newsroom   About ▾   **Tax Research**

Artificially Intelligent Legal Information Research Assistant

Chat to Ailira

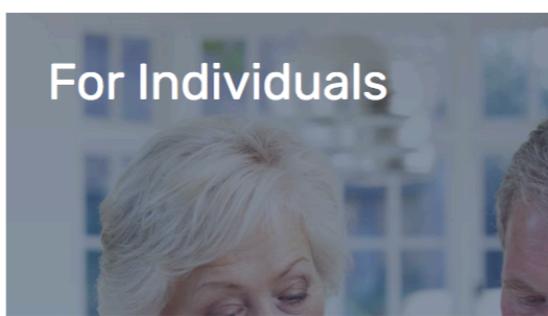**To continue chat to Ailira, please login**

| Name |
| Email |

Login

OR

f   Login with Facebook
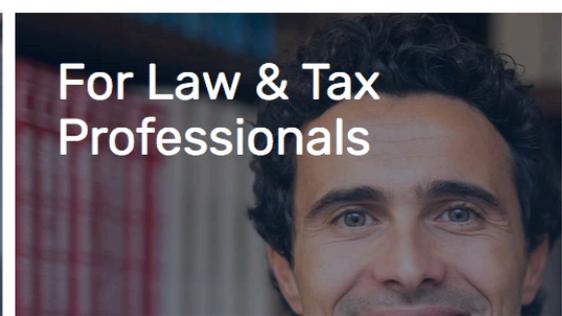
Terms and Conditions

Ailira is an artificial intelligence that uses natural language processing to provide free legal information on a broad range of legal issues, including Business Structuring, Wills and Estate Planning and much more coming soon! In addition, you can use Ailira to instantly generate Australian legal documents for your business and personal use, much cheaper and faster than a visit to a lawyer would take.

For Individuals

For Small Businesses

For Law & Tax Professionals

kira

How It Works   Solutions   Resources   Careers   Blog

Log In   Request a Demo

It's How You Know
What's In Your Contracts

Kira is a powerful machine learning software that identifies, extracts, and analyzes text in your contracts and other documents.

Learn More

What this thing called a Domain Specific Language?

Domain Specific Languages

- Computer language that is adapted to a specific domain, such as legal contracts

- Differs from general-purpose computer language (e.g. Python)

- Can be used to automate business processes (e.g. contract negotiation)

- Resulting contract can be implemented on a blockchain

- An example is legalese.com

KNOW ALL MEN BY THESE PRESENTS

that

WONG MENG WENG
upenn.edu (SEAS '97), Harvard Berkman Klein ('16–'17), Stanford CodeX ('17–'18)
previously co-founder of pobox.com, karmasphere.com, hackerspace.sg, and jfdi.asia
and co-author of SPF (IETF RFC4408), a globally deployed opensource email standard

and

ALEXIS CHUN
a recovering lawyer who read at Queen Mary in London, practiced at TSMP (M&A)
and Rajah & Tann (commercial litigation), and spent years consulting on software contracts
before coming to the conclusion that doing things by hand was never going to get better

TOGETHER WITH

JOB CHONG
a self-taught Javascript developer
fresh out of NUS law school
our first legal engineer

COLIN CHARLES
who advises us on opensource
business models, informed by his
work at MySQL & MariaDB

DUSTIN WEHR
a Ph.D. in logical argumentation
specialising in language
design and dev

VIRGIL GRIFFITH
a Caltech Ph.D. and boy does it show
Internet Man of Mystery and
our Ethereum specialist

AND

AL Interview: Software is Eating Law – Legalese.com

🕐 29th July 2016   👤 artificiallawyer   🗂 Blockchain, Future, Interview, Smart contracts   💬 0

DSL + AI = (Lawyer) Killer App

It gets better...

Software + Blockchain = *DAO*

rganization example

MAKER

Products   Learn   Foundation   Community

Transparent and sustainable finance

Maker is comprised of a decentralized stablecoin, collateral loans, and community governance.

▷ Watch overview   ⧉ Read the White Paper   ◇ Learn about Dai

https://legislature.vermont.gov/statutes/section/11/025/04173

Vermond BBLLC

OTM · TBP · JDay · TMSearch · Ecosophia · ClubOrlov · NEO · Data School · Magnolia · Plone · CC Search · Saker · CJ · Neural nets & deep …

VERMONT GENERAL ASSEMBLY

SEARCH FOR: **Bill or Resolution** **Legislator** **Committee** ? How to use this search

Q Enter bill number, title or keyword   **SEARCH**

| BILLS & RESOLUTIONS | COMMITTEES | VERMONT LAWS | HOUSE | SENATE | JOINT FISCAL OFFICE | REPORTS & RESEARCH | THE STATE HOUSE | STAFF & OFFICES |

STATUTES

[Vermont Statutes Online](#)

[Statutes Search](#)

[Vermont Statutes at Lexis/Nexis](#)

CONSTITUTION

[Constitution of the State of Vermont](#)

ACTS

[Acts & Resolves](#)

[Acts Affecting VSA Sections](#)

RULES

[State Agency Rules at Lexis/Nexis](#)

PRINT 🖨

The Vermont Statutes Online

The statutes were updated in November, 2018, and contain all actions of the 2018 legislative session.

Title 11 : Corporations, Partnerships And Associations

Chapter 025 : Limited Liability Companies

Subchapter 012 : Blockchain-based Limited Liability Companies

(Cite as: 11 V.S.A. § 4173)

§ 4173. Authority; requirements

Notwithstanding any provision of this chapter to the contrary:

(1) A BBLLC may provide for its governance, in whole or in part, through blockchain technology.

(2) The operating agreement for a BBLLC shall:

(A) provide a summary description of the mission or purpose of the BBLLC;

(B) specify whether the decentralized consensus ledger or database utilized or enabled by the

dOrg Founders Have Created the First Limited Liability DAO

John Biggs

Jun 11, 2019 at 22:00 UTC

NEWS

DOrg, a company that builds DAO-related software founded by Ori Shimony, Asgeir Sognefest, and Jordan Ellis, has created what it calls the first Limited Liability Decentralized Autonomous Organization or DAO, a legal way to "reference blockchain code (smart contracts in our case) as the legitimate source of authority for their company's operations and governance."

dOrg

Empowering Distributed Organizations

ABOUT   CREATE A DAO   F.A.Q.

AI + Blockchain = *adaptable* DAO

A.iBlockChain
ARTIFICIAL INTELLIGENCE

MODERN TOOLS   FEATURES   OUR SERVICES   OUR PRODUCTS   CAREERS   CONTACT   BLOCKCHAIN INDUSTRY ARTICLES

Artificial Intelligence BlockChain Technology

AMAZON AWS and SAP HANA DEVELOPMENT PARTNER

PRODUCTS   OUR SERVICES

Modern Tools

AI BlockChain is a proprietary blockchain solution that provides enterprise-friendly tools that can enhance any existing architecture. AI BlockChain technology is a user-friendly transparent energy efficient digital ledger that maximizes security while remaining immutable by employing artificial intelligent agents that govern the chain.

Much of the AI-related effort is going *Open Source...*

Better Language Models and Their Implications

We've trained a large-scale unsupervised language model which generates coherent paragraphs of text, achieves state-of-the-art performance on many language modeling benchmarks, and performs rudimentary reading comprehension, machine translation, question answering, and summarization—all without task-specific training.

FEBRUARY 14, 2019
21 MINUTE READ

https://openai.com/blog/better-language-models/
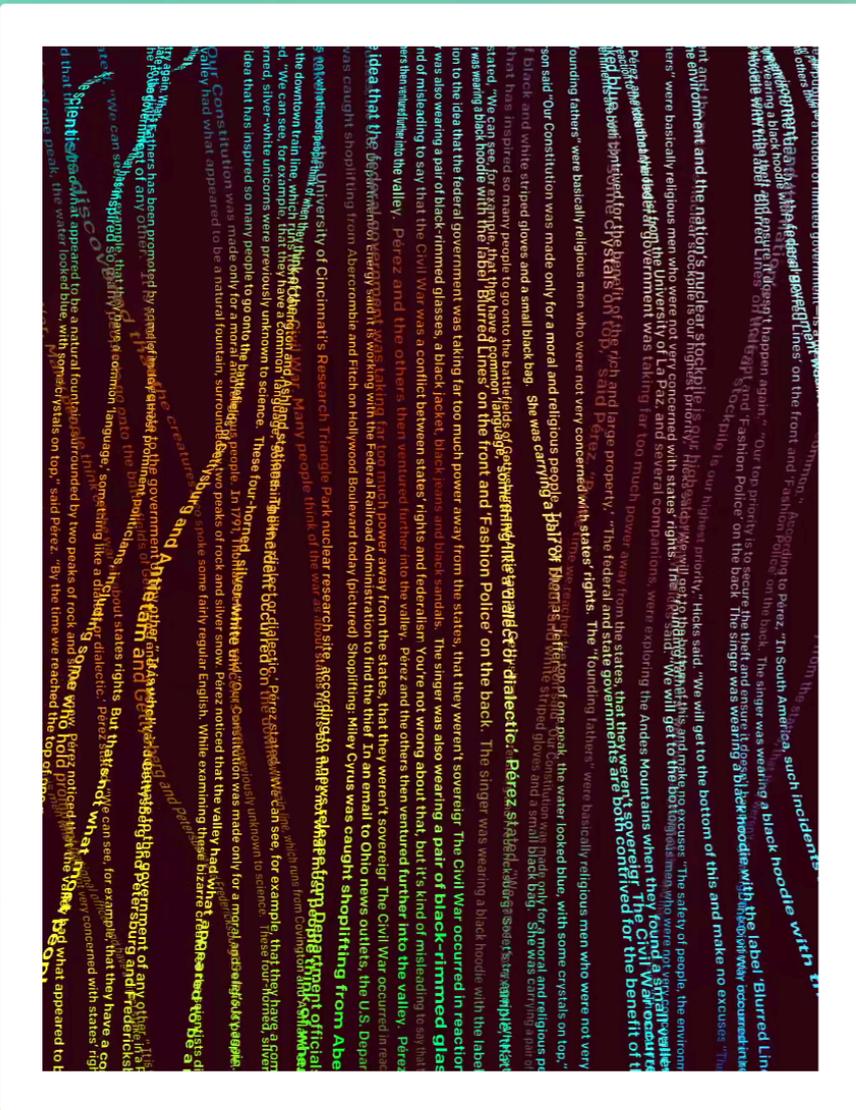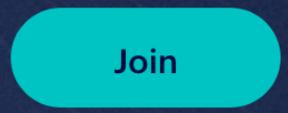
Open source software tools for smart legal contracts

The **Accord Project** is an open ecosystem enabling anyone to build smart agreements and documents on a technology neutral platform

Discover how to build contract templates and use the open source code libraries

DOCUMENTATION →

Create and edit smart contracts and clauses online using Template Studio

TEMPLATE STUDIO →

Push forward smart agreement technology with the Accord Project community

TECH WORKING GROUP →

Accord Project 0.12.3

Documentation   Try Online!   ⊙ GitHub   🔍 Search

Authoring in Template Studio

This tutorial will walk you through the steps of authoring a clause template in **Template Studio**.
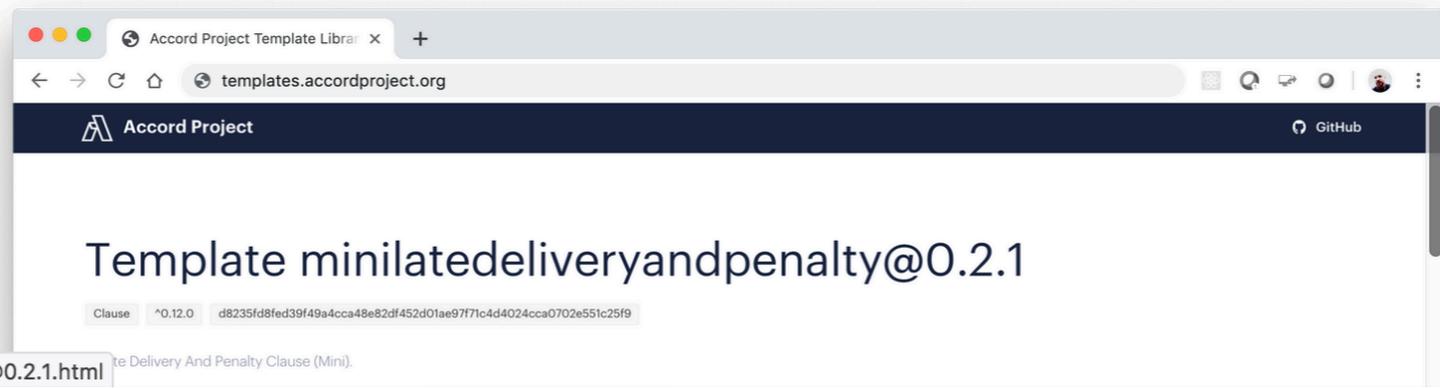
We start with a very simple *Late Penalty and Delivery* Clause and gradually make it more complex, adding both legal text to it and the corresponding business logic in Ergo.

Initial Late Delivery Clause

Load the Template

To get started, head to the `minilatedeliveryandpenalty` template in the Accord Project Template Library at **https://templates.accordproject.org/minilatedeliveryandpenalty@0.2.1.html** and click the "Open In Template Studio" button.

← → ↻ ⌂ | 🌐 templates.accordproject.org

Accord Project   ⊙ GitHub

Template minilatedeliveryandpenalty@0.2.1

Clause   ^0.12.0   d8235fd8fed39f49a4cca48e82df452d01ae97f71c4d4024cca0702e551c25f9

te Delivery And Penalty Clause (Mini).

https://docs.accordproject.org/docs/advanced-latedelivery.html

Late Delivery and Penalty.

In case of delayed delivery of Goods, "Betty Buyer" shall pay to
"Steve Seller" a penalty amounting to 10.5% of the total
value of the Goods for every 2 days of delay. If the
delay is more than 15 days, the Buyer is entitled to
terminate this Contract.

```json
{
    "$class": "org.accordproject.minilatedeliveryandpenalty.MiniLateDeliveryClause",
    "clauseId": "8ddfb989-b632-4613-aab3-b22076b5d1d2",
    "buyer": {
        "$class": "org.accordproject.cicero.contract.AccordParty",
        "partyId": "Betty Buyer"
    },
    "seller": {
        "$class": "org.accordproject.cicero.contract.AccordParty",
        "partyId": "Steve Seller"
    },
    "penaltyDuration": {
        "$class": "org.accordproject.time.Duration",
        "amount": 2,
        "unit": "days"
    },
    "penaltyPercentage": 10.5,
    "maximumDelay": {
        "$class": "org.accordproject.time.Duration",
        "amount": 15,
        "unit": "days"
    }
}
```

... and they are getting organized

THE LINUX FOUNDATION

Projects   Membership   Events   Training   Resources   Newsroom   About

Linux Foundation to Host the Accord Project to Develop Open Source Framework for Smart Legal Contracts

By The Linux Foundation | June 5, 2019

The open source project will establish and maintain a common legal and technical foundation for smart legal contracts

London, Accord Project Forum, June 6, 2019 – The Linux Foundation, the nonprofit organization enabling mass innovation through open source, today announced the launch of the Accord Project as a Linux Foundation project. The Accord Project is a nonprofit organization that builds open source code and documentation to maintain a common and consistent legal and technical foundation for contract management. The project comprises all the software necessary to author, edit and execute smart legal contracts in a standardized way. Many of the world's largest global law firms have signed on, as well as leading industry bodies and technology companies such as DocuSign, IBM, IEEE and R3.

Smart contracts are showing promise for simplifying complexities in supply chain management and other contract-heavy areas of technology development, but they also introduce requirements for interoperability and consistency. The Accord Project provides a globally interoperable approach for creating contracts that bind legally enforceable natural language text to executable business logic. With an increased focus on enterprise digitalization, adoption of blockchain technologies and the growth of the API economy, the usage of computable agreements is rapidly increasing. Having a common format for "computable" legal agreements is an important cornerstone for the future of commercial relationships. One of the main purposes of Accord Project is to provide a vendor-neutral ".doc" format for smart legal agreements.

"The Linux Foundation is home to communities that are advancing the world's most critical software infrastructure," said Mike

This means that…
Corporations will be competing with **free**

Which means that…
Lawyers will be competing with
Corporations will be competing with **free**

Clients like near-**free**

Clients like near-**free**

You're in a race against Technology

❖ You will lose the race…

❖ … but not right away

❖ You will be forced to use AI in order to practice law at all

❖ You must adapt while you can

❖ You can only adapt if you know *how* to adapt — technical competency

❖ Learn where humans excel over AI (and where AI excels)

❖ The "human touch" will be a luxury — *exploit it*

What To Do

- ❖ **Mindset**

  - ❖ Use AI to augment humans

  - ❖ Hire people who can work well with machines

  - ❖ Hire people who are comfortable with constant change

  - ❖ Be comfortable with machines and change *yourself*

What To Do

- **Experimentation**
  - Actively review current processes
    - How can humans change
    - How can AI change
  - Human/AI collaboration is key to the best processes

What To Do

- **Leadership**
  - Responsible use of AI
    - Ethical
    - Moral
    - Legal
    - Accountability
    - Bias

What To Do

- **Data**

  - Build a data "supply chain"

  - Not only input data, but also "exhaust data"

  - Know that there is a <u>cost</u> and *responsibility* for data

  - Attorneys tend to hoard data

  - Must adapt incentives for sharing rather than hoarding

What To Do

- **Skills**
  - Eight "fusion skills" necessary for reimagining processes with AI
    - Rehumanizing time
    - Responsible normalizing
    - Judgement integration
    - Intelligent interrogation
    - Bot-based empowerment
    - Holistic melding
    - Reciprocal apprenticing
    - Relentless reimagining

Low Hanging (AI) Fruit

- ❖ Back office operations

  - ❖ e.g., computer security

  - ❖ e.g., estimating profit of case

  - ❖ e.g., business intelligence

- ❖ Client intake

- ❖ Marketing

- ❖ Amplify human abilities

- ❖ Hire what you need

AI is great when you can't afford to hire an employee

<some examples>

AI Chatbots for Client Intake

CREATING A LAWYER IN A BOX: BUILDING USER-FRIENDLY INTERVIEWS WITH DOCASSEMBLE

Quinten Steenhuis, Greater Boston Legal Services
@QSteenhuis /
nonprofittechy.com

https://www.slideshare.net/QuintenSteenhuis/creating-a-lawyer-in-a-box-building-user-friendly-guided-interviews-with-docassemble

📖 **GBLS** / **docassemble-template-builder-addin**

👁 Watch   4   ★ Star   6   ⑂ Fork   6

<> Code   ⊘ Issues **7**   ⑂ Pull requests **0**   ▯ Projects **2**   📖 Wiki   �📊 Insights

A Microsoft Word Add-in (2013+) that helps with building templates for Docassemble.org guided interviews

🕑 **124** commits   ⑂ **3** branches   ⬡ **0** releases   👥 **3** contributors   ⚖ **MIT**

Branch: **master** ▾   New pull request   Find File   Clone or download ▾

nonprofittechy Update README.md   Latest commit 0c53bb7 on Jun 14, 2018

📁 build	Remove non-functional help button	10 months ago
📁 public	new build	10 months ago
📁 src	Merge changes - refactored search/replace code and added support to r...	10 months ago
📄 .babelrc	polyfill for promise in es5	10 months ago
📄 .gitignore	Fixed local ssl instructions, modified local manifest with unique ID	10 months ago

https://github.com/GBLS/docassemble-template-builder-addin

Meet ROSS' new Coworker, EVA

January 29, 2018

MEET EVA
SUPERCHARGE YOUR
LEGAL RESEARCH
ROSS

https://blog.rossintelligence.com/post/ross-new-coworker-eva

≡ casetext   Tour   Product   Pricing   Switch   Big Firm   Coverage   Sign In   **Free Trial**

≡ casetext   **CARA Search** A.I. document search ▾   employee contractor status ▾   All State & Federal ▾ 🔍   🕐 § SH ?

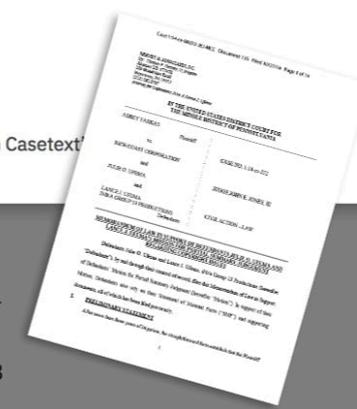**Filter an** ... ...evance ▾

✕

Upload a complaint or brief to quickly find on-point case law.

CARA A.I. uses the facts and legal issues in your document to find relevant authorities.

┌─────────────────────────────┐
│   │
│ **Drag a complaint or brief here** │
│ Or, select a file   │
│   │
│ PDFs, Word docs, or text files │
└─────────────────────────────┘

🔒 Casetext uses bank-level security   ⬦ Your documents are never stored on Casetext'...

Filter an

🔍 Sear...

✕ Fac...
  Powe...

✕ Hid...

Cases

Holdings

Black Letter Law   2

Statutes   1,000+

Regulations   1,000+

Briefs   1,000+

Analyses   1,000+

☑ **All State**   939,442

☑ **All Federal**   955,531

Cal.App.3d 776, 783 [176 Cal. Rptr. 888].) If the evidence is undisputed, the question becomes one of law (Tieberg v. Unemployment Ins. App. Bd. (1970) 2 Cal.3d 943, 951 [88 Cal.Rptr. 175, 471 P.2d 975]), but deference to the agency's view is appropriate. The label placed by the parties on their relationship is not dispositive, and subterfuges are not countenanced. (Kowalski v. Shell Oil Co. (1979) 23 Cal.3d 168, 176 [151 Cal.Rptr. 671, 588 P.2d 811]; Tieberg, supra, 2 Cal.3d at p. 952; Truesdale v. Workers' Comp. Appeals Bd. (1987) 190 Cal.App.3d 608, 614 [235 Cal.Rptr. 754]; Martin v. Phillips Petroleum Co. (1974) 42 Cal.App.3d 916, 922-923 [117 Cal.Rptr. 269]; see Bemis v. People (1952) 109 Cal.App.2d 253, 267 [240 P.2d 638].) The Act must be liberally construed to extend benefits to persons injured in their employment. (§ 3202) One seeking to avoid liability has the

---

Cutting-edge technology

Have CARA A.I. do the research for you

Casetext's artificial intelligence search, CARA, finds cases on the same

facts, legal issues, and jurisdiction as your matter. Just drag and drop a

WatchGuard and Cylance Webinar

Delivering Predictive Protection with Artificial Intelligence

May 8, 2019 - 8:00 AM PDT

https://secure.watchguard.com/WatchGuard_Cylance_AI_Webinar_Registration.html

ARTIFICIAL INTELLIGENCE

AI Is Within Reach for Small Business Marketing

It's time to level the marketing playing field.

Add to Queue

NEXT ARTICLE

ARTIFICIAL INTELLIGENCE

Hello, Collaboration! How the Future of A.I. Lies With Brand Cross-Pollination

ARTIFICIAL INTELLIGENCE

This AI Predicts Online Trolling Before It Happens

ARTIFICIAL INTELLIGENCE

How Algorithms Can Predict Our Intentions Faster Than We Can

ARTIFICIAL INTELLIGENCE

AI Opportunities Abound, If You Know the Unexpected Places to Look

CHATBOTS

How to Create a Facebook Messenger Chatbot For Free Without Coding

https://www.entrepreneur.com/article/325817

Get a grip on your contracts.

IDENTIFY LEGAL MATERIAL

Automatically identify legal material among your sea of files and communications.

ORGANIZE AND TAG DOCUMENTS

Automatically group and tag documents into related clusters by content or metadata.

DE-DUPLICATE DOCUMENTS

Automatically match duplicate or near-duplicate documents like executed copies, revisions, and amendments.

https://contraxsuite.com/

https://legal.thomsonreuters.com/en/products/westlaw/edge

ᴸᵀ Lex Machina®

Legal Analytics Platform

Leveraging the latest advances in computer science, together with our in-house legal expertise, Lex Machina has created a unique Legal Analytics Platform that enables you to craft successful strategies, win cases, and close business. Our Legal Analytics® Platform is delivered via on-demand subscription.

Analyze Judges and Courts

Would you like to know how Judge Sleet will likely respond to a motion to transfer? Use our *Motion Metrics Report* to view grant/deny rates. See how a specific judge compares to the national average. Click the hyperlinks in the chart to further explore the underlying motion-order chains. With Lex Machina, you can easily view:

- How likely is a judge to grant or deny a specific motion?
- How long do cases take to get to a grant of a permanent injunction, to trial, or to termination before a judge?
- How likely is a judge to find infringement of a patent, fair use of a trademark, or a Securities Act violation?

Cases and PTAB Trials

https://lexmachina.com/legal-analytics/

Things to Know

deep learning
supervised
unsupervised
machine learning (ML)

content extraction
classification
machine translation
question answering
text generation
natural language processing (NLP)

expert systems

image recognition
machine vision
vision

speech to text
text to speech
speech

planning

robotics

Artificial Intelligence (AI)

AI is hard (for now)

scikit-learn algorithm cheat-sheet

START

classification

- kernel approximation
- SVC
- Ensemble Classifiers
- KNeighbors Classifier
- SGD Classifier
- Naive Bayes
- Text Data
- Linear SVC
- <100K samples

NOT WORKING · NOT WORKING · NOT WORKING · NO · YES · NO · YES · NO · YES

get more data

>50 samples — NO

predicting a category — YES

do you have labeled data — YES

regression

- SGD Regressor
- Lasso
- ElasticNet
- SVR(kernel='rbf')
- EnsembleRegressors
- <100K samples
- few features should be important
- RidgeRegression
- SVR(kernel='linear')

NO · YES · YES · NOT WORKING · NO

predicting a quantity — YES · NO

clustering

- Spectral Clustering
- GMM
- KMeans
- number of categories known
- <10K samples
- MiniBatch KMeans
- <10K samples
- MeanShift
- VBGMM

NOT WORKING · YES · YES · NO · NO · YES · NO

tough luck

just looking — YES · NO

predicting structure

dimensionality reduction

- Randomized PCA
- Isomap
- Spectral Embedding
- LLE
- <10K samples
- kernel approximation

NOT WORKING · YES · NO · NOT WORKING

Back

scikit learn

https://scikit-learn.org/stable/tutorial/machine_learning_map/

But learning AI yields great benefits

<however>

Technology is a two-edged sword...

... if you don't own or control it.

Who Owns Your Practice?

- You *can* develop your own AI
  - You will own it (exclusively)
  - You can tailor it as needed
  - Competitive advantage
- If you don't own the AI, know:
  - Permissions needed?
  - Who owns the training that you _will_ do to the AI?
  - Will others use your work?

Mirandize Your AI Contract

❖ Do I have a right to my work? Will anything that I say or do be learned by the AI? Will what the AI learns from me be used against me in a court of law? Will I be remunerated for training your AI? If I cannot afford the AI in the future, will it be used by my clients?

The practice of law is (becoming) *very* technology-driven

Are you ready?

Technical Competence

❖ 36 states require some level of technical competence

  ❖ https://www.lawsitesblog.com/tech-competence

❖ Texas was the 36th state to adopt such a standard

  ❖ Paragraph 8, Rule 1.01 of the Tex. Disciplinary Rules

  ❖ …each lawyer should strive to become and remain proficient and competent in the practice of law, *including the benefits and risks associated with relevant technology. …*

Cass v. 1410088 Ontario Inc., 2018 ONSC 6959 (CanLII)

Document | History (1) | Cited Documents (9) | Cited by (1) | CanLII Connects (0)

🖶 PDF

Date:	2018-11-22
File number:	51145/09
Citation:	Cass v. 1410088 Ontario Inc., 2018 ONSC 6959 (CanLII), <http://canlii.ca/t/hw728>, retrieved on 2019-06-10

lexbox | ☁ Save this case | ⏰ Set up citation alert | ✉ Email this case | 📁 Browse Lexbox ▼

CITATION: Cass v. 1410088 Ontario Inc., 2018 ONSC 6959
COURT FILE NO.: 51145/09
DATE: 2018-11-22

ONTARIO
-
SUPERIOR COURT OF JUSTICE

BETWEEN:)
)
Kristen Cass) Rosemary Book, Counsel for the Plaintiff
)
)
)
)
Plaintiff)
)
- and -)

Drummond v. The Cadillac Fairview Corp. Ltd., 2018 ONSC 5350 (CanLII)

Document | History (2) | Cited Documents (5) | Cited by (0) | CanLII Connects (0)

🖨 PDF

Date:	2018-09-13
File number:	CV-16-560673
Citation:	Drummond v. The Cadillac Fairview Corp. Ltd., 2018 ONSC 5350 (CanLII), <http://canlii.ca/t/hv321>, retrieved on 2019-06-10

lexbox | ☁ Save this case | ⏰ Set up citation alert | ✉ Email this case | 📁 Browse Lexbox ▼

CITATION: Drummond v. The Cadillac Fairview Corp. Ltd., 2018 ONSC 5350
COURT FILE NO.: CV-16-560673
DATE: 2018/09/13

ONTARIO
SUPERIOR COURT OF JUSTICE

BETWEEN:)
)
Stephen Drummond) *Shane H. Katz* for the Plaintiff
)
Plaintiff)
)
– and –)
)
The Cadillac Fairview Corporation Limited)
) *Stuart Woody* for the Defendant
)
Defendant)
) **HEARD**: In writing

Goals

❖ Be prepared to adopt a new business model for your firm

❖ Learn the lingo (and what it means and what it portends)

❖ Understand the functionality (and when it makes sense)

❖ Understand the security and ownership implications

❖ Incorporate AI into your practice

But I don't code!

You won't have to.

Predictive Coding 4.0 – Nine Key Points of Legal Document Review

Contrary to what some vendors will tell you, predictive coding 3.0, and now 4.0, methods are not rocket science. You do not have to be a TAR-whisperer or do nothing but search, like my A-team for TREC. With good software it is not really that hard at all. These methods do, however, require an attorney knowledgable in e-discovery and comfortable with software.

https://complexdiscovery.com/predictive-coding-4-0-nine-key-points-of-legal-document-review-and-an-updated-statement-of-our-workflow-part-one/

Most of this stuff is **free**

Most of this stuff is **free**

NLTK Scikit-Learn polyglot gensim RasaNLU spaCy

Python NLP Libraries

Natural Language Processing FOR HACKERS

Some are already tailored for Law

ContraXSuite BY LEXPREDICT

Products   Services   Clients   Use Cases   Open Source

LexNLP Features

(https://contraxsuite.com/lexnlp-features/)

Information Extraction

Extract Legal Terms

Legal Terms

Tools for real-world data

Do stuff with text.

- Find dates like effective dates, termination dates, or delivery dates
- Find parties like persons and organizations
- Find durations like terms, notice periods, or assignment delays
- Find references to citations or regulations like "26 U.S.C. 501," "26 CFR 31.3121," or "655 F.3d 1013"
- Find references to courts or regulators
- Find controlling law and jurisdictions
- Find copyrights and trademarks
- Find definitions like "Default shall mean…"

```
>>> import lexnlp.extract.en.durations
>>> text = "This Agreement shall terminate in nine (9) months."
>>> print(list(lexnlp.extract.en.durations.get_durations(text)))
[('month', 9.0, 270.0)]
```

And it is getting better and easier to use — RAPIDLY!

Feeling better?

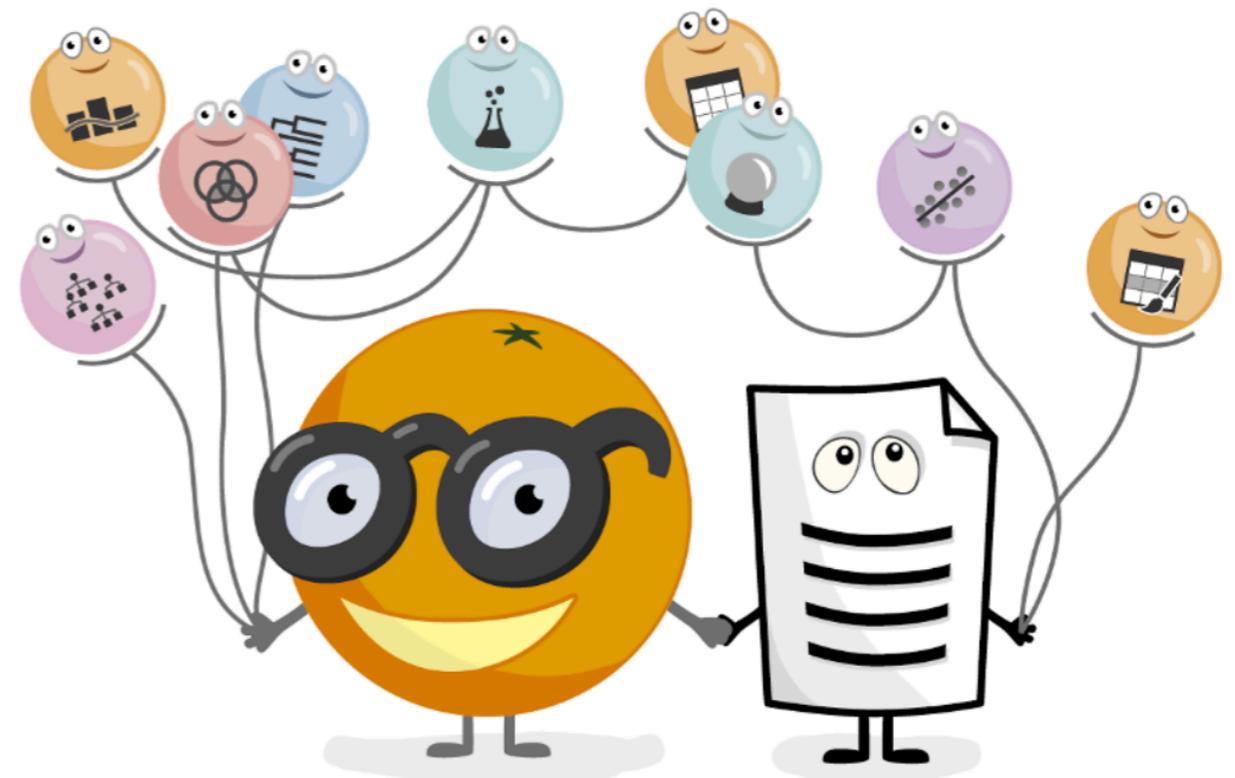# Here is a gentle introduction to Machine Learning and Data Analytics

A gentle, easy-to-use introduction to data science and machine learning ("AI")
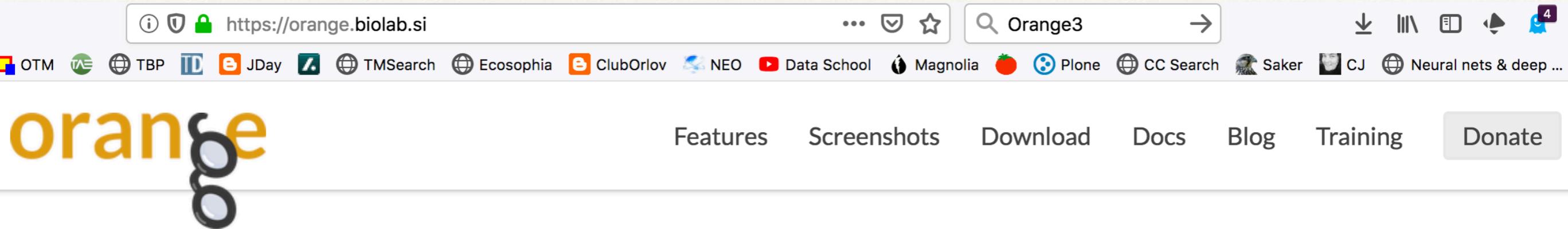
https://orange.biolab.si/

orange

Home   Screenshots   Download   Docs   Blog   Training   Donate

Getting Started

Download and Install

Download Orange distribution package and run the installation file on your local computer.

Run

Locate Orange program icon. It is probably on your desktop (Win, Linux) or in the Applications folder (Mac). Double click on the icon to run Orange.

Orange

Welcome to Orange

At the start, Orange opens a welcome screen. From here you can create new data mining workflows or browse through the ones you have already created. If you are running Orange for the first time, start by clicking on the Tutorial icon to browse through tutorial workflows.

Welcome to Orange Data Mining

New   Open   Recent

YouTube

Orange3

SIGN IN

Home

Trending

Subscriptions

Library

History

Sign in to like videos,
comment, and subscribe.

SIGN IN

BEST OF YOUTUBE

Music

Sports

Gaming

Movies

TV Shows

News

Live

Spotlight

FILTER

Orange Data Mining

8,512 subscribers • 28 videos

Video tutorials for Orange data mining suite. Explanation of popular data mining algorithms and demonstration of workflow ...

SUBSCRIBE 8.5K

Latest from Orange Data Mining

Single Cell Orange 03: Loading Single Cell Data from Tab-Delimited Files

Orange Data Mining • 797 views • 4 months ago

In the video, we explain how to load your own data from Excel and other tab-delimited files and how to use labels from ...

5:29

Single Cell Orange 02: Loading Single Cell Data from 10x Matrix

Orange Data Mining • 701 views • 5 months ago

In the video, we explain how to load your own data from the 10x Genomics matrix data file and how to merge data from different ...

5:50

+8 MORE

Classification in Orange (CS2401)

haikel5 • 48K views • 3 years ago

Questions?

Kurt Vonnegut

If you compete with a slave…

…you *are* a slave.

Kurt Vonnegut, Player Piano (1952)