

# AI for Lawyers

## Cutting Edge (and Simpler) Solutions

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[driehl@fastcase.com](mailto:driehl@fastcase.com)  
Twitter: [@damienriehl](https://twitter.com/damienriehl)

### I. WHAT IS AI?

Not magic. Just code, numbers, and smart human analysts.

#### A. Forms of AI

1. Machine Learning
  - a) Deep Learning
2. Natural Language Processing
  - a) Text Generation
  - b) Question Answering
  - c) Context Extraction
  - d) Classification
  - e) Machine Translation
3. Expert Systems
  - a) E.g., TurboTax
4. Speech Recognition
  - a) Speech to Text
  - b) Text to Speech

5. **Vision**
  - a) **Machine Vision**
  - b) **Image Recognition**
6. **Planning**
7. **Robotics**
8. **Artificial General Intelligence**

## **II. LAWYERS' DUTY OF TECH COMPETENCE**

### **A. ABA model Rule 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 – Maintaining Competence**

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.

### **B. States Adopting Duty of Tech Competence: 38**

<https://www.lawsitesblog.com/tech-competence>

## **III. YESTERDAY'S AI**

### **A. Tools you use every day**

1. **Word**
2. **Excel**
3. **PDF**

### **B. Procetas & Casey Flaherty**

<https://www.procetas.com/>

## C. Get a scanner: Fujitsu Scansnap

# IV. CYBERSECURITY

## A. People + Tech + Processes

### 1. People

Train the weakest link (“human engineering”)

### 2. Technology - E.g.,

- a) Firewalls
- b) Incident detection
- c) Encryption
- d) Require strong passwords

### 3. Processes/Controls - E.g.,

- a) Policies + Education + Awareness + Diligence
- b) Limited access privileges
- c) Multi-factor authentication (2FA)
- d) Prohibiting shared passwords

## B. Cybersecurity Tips

### 1. Encrypt your devices (BitLocker or FileVault)

### 2. Update your tech:

- a) Devices (e.g., mobile 3-year security guarantee)
- b) Operating systems (e.g., Windows, MacOS)
- c) Browsers (e.g., Chrome, Firefox, Edge)

#### **d) Antivirus**

- 3. Use Password Managers + strong passwords**
- 4. Use multifactor authentication (2FA or MFA)**

### **C. Lawyerist**

#### **1. Website**

<https://lawyerist.com/>

<https://lawyerist.com/technology/>

#### **2. Small Firm Roadmap**

### **D. Document Assembly**

#### **1. HotDocs**

#### **2. Templafy**

#### **3. Docassemble**

### **E. Project Management**

#### **1. Kanban**

#### **2. John Grant: "Agile Attorney"**

<https://agileattorney.com/>

#### **3. Trello**

<https://trello.com/>

### **F. Practice Management**

#### **1. Clio**

<https://www.clio.com/>

#### **2. RocketMatter**

<https://www.rocketmatter.com/>

## **G. Calendar Automation**

- 1. Calendly**

<https://calendly.com/>

- 2. Acuity Scheduling**

<https://www.acuityscheduling.com/>

## **H. Cloud Automation**

- 1. Zapier**

<https://zapier.com/home>

- 2. IFTTT**

<https://ifttt.com/>

- 3. TypeForm**

<https://www.typeform.com/>



# AI for Lawyers

Cutting Edge (and Simpler) Solutions

Who are you?

...and do you know  
anything about AI?

What is AI?

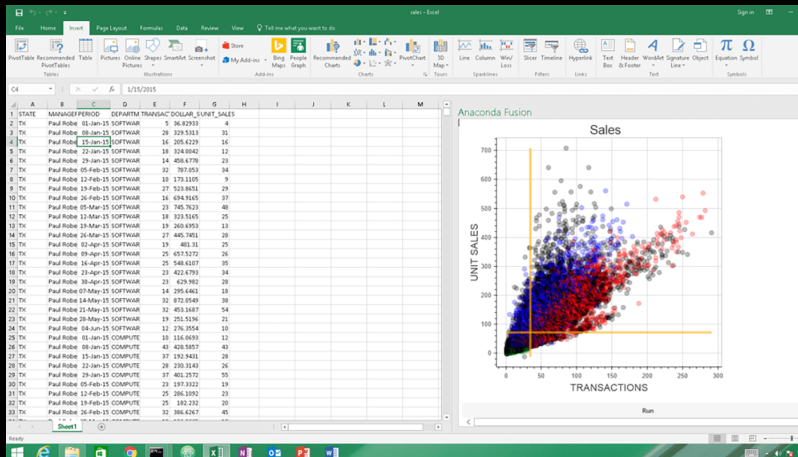
# Magic?



# Nope. Just code.

```
333     return examples
334
335
336 class ColaProcessor(DataProcessor):
337     """Processor for the Cola data set (GLUE version)."""
338
339     def get_train_examples(self, data_dir):
340         """See base class."""
341         return self._create_examples(
342             self._read_tsv(os.path.join(data_dir, "train.tsv")), "train")
343
344     def get_dev_examples(self, data_dir):
345         """See base class."""
346         return self._create_examples(
347             self._read_tsv(os.path.join(data_dir, "dev.tsv")), "dev")
348
349     def get_test_examples(self, data_dir):
350         """See base class."""
351         return self._create_examples(
352             self._read_tsv(os.path.join(data_dir, "test.tsv")), "test")
353
354     def get_labels(self):
355         """See base class."""
356         return ["0", "1"]
357
358     def _create_examples(self, lines, set_type):
359         """Creates examples for the training and dev sets."""
360         examples = []
361         for (i, line) in enumerate(lines):
362             # Only the test set has a header
363             if set_type == "test" and i == 0:
364                 continue
365             guid = "%05d-%s" % (set_type, i)
366             # For training, we will use the first two columns as labels
```

# ...and numbers

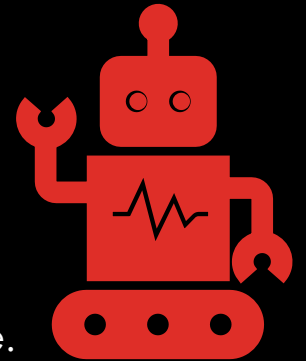


# TEST: IS IT A.I.?

Do you know how it works?

**NO.** Wow — *amazing* A.I.!

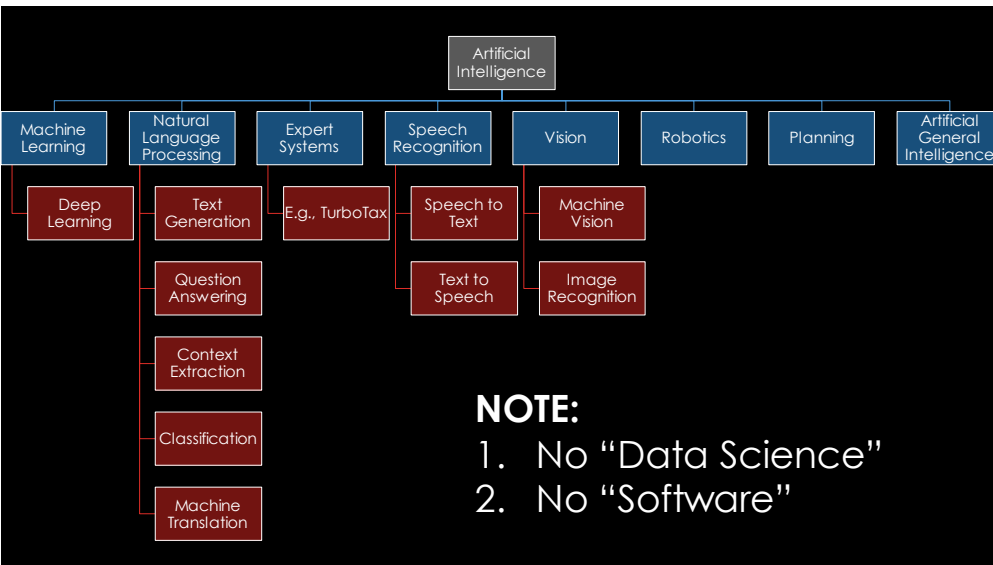
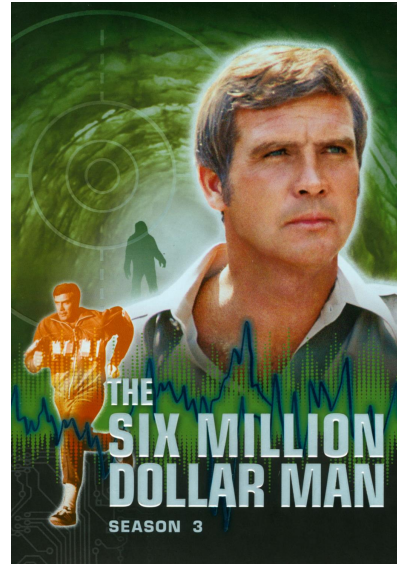
**YES.** Yawn — it's just software.



Automatic?



Makes me faster?  
Better?



Does AI definition matter?

Probably not.

Then what *does* matter?

Does it *help me* do my job:

- Better?
- Faster?



# Emerging legal tech (e.g., AI)

Or is "yesterday's legal tech" good enough?

# Yesterday's AI

The screenshot shows the MapQuest website interface. At the top, there are navigation links: "Get Directions", "Map a Location", "Find a Place", and "Search the Web". Below these are input fields for "Start" and "End" addresses, with a "Go" button. A sidebar on the left contains "Itinerary", "Places", and "My Settings" tabs. The main map area displays a red route from Paterson, NJ to New York City. A detailed list of directions is provided on the left side of the map, including steps like "Turn LEFT onto MAIN ST.", "Turn RIGHT onto ELLISON ST.", and "Turn RIGHT onto WASHINGTON ST.". The total time is listed as 1 hour 25 minutes and the total distance as 63 mi. At the bottom, there are sponsored links for "Holiday Inn", "Shopping", "Coffee Shops", "Restaurants", and "Gas Stations".

The screenshot shows a mobile navigation app interface. At the top, there is a status bar with "4G", signal strength, and the time "12:23 PM". The main map area shows a street grid in San Diego, with a blue route highlighted. A green arrow points left, indicating a turn, with a "0.2 mi" distance. A white box on the map says "Same ETA". At the bottom, there is a summary bar: "7 min • 1.2 mi • 12:29 PM ETA". The map includes labels for streets like "W A St", "W Broadway", "W B St", "W Ash St", "W Cedar St", "Columbia St", and "India St". Landmarks like "San Diego - Santa Fe Depot" and "San Diego Administration Center" are also visible.



Then what should **lawyers** consider AI?



2000

2020

202x

Yesterday's AI for Lawyers

Microsoft Word



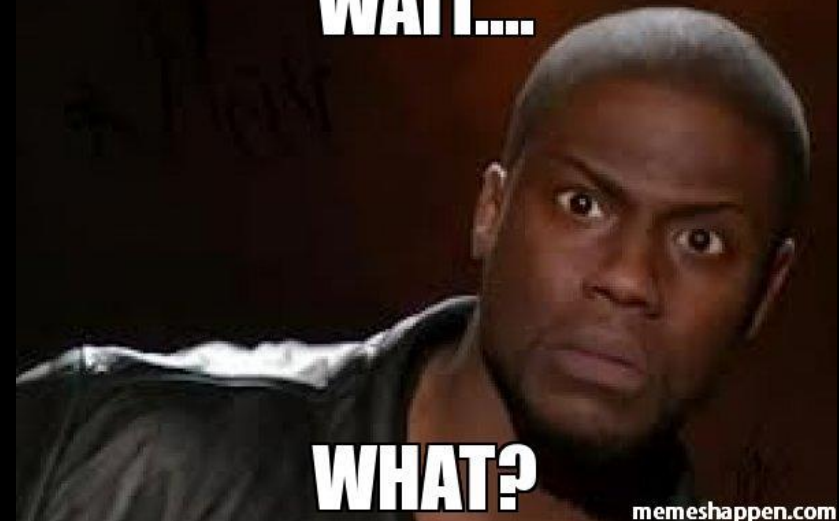
Microsoft Excel




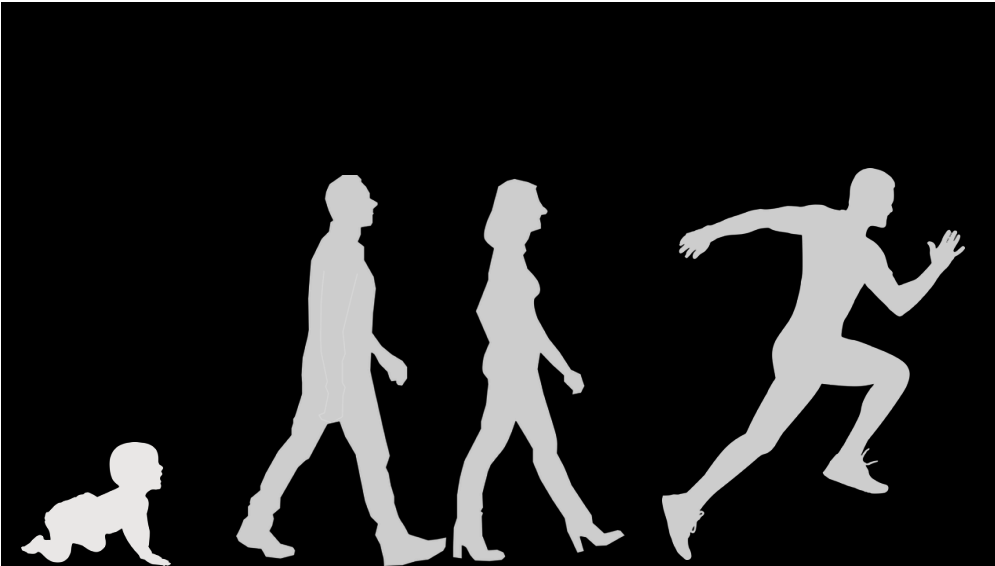
Adobe PDF



**WAIT....**



**WHAT?**




Get more from the tools you use every day


Sort Data in Excel    Track Changes in Word    Annotate in PDF



Casey Flaherty



- Accept/Turn-off changes + comments
- Cut & Paste
- Replace text
- Format text
- Footers
- Insert hyperlink
- Apply/Modify style
- Insert/Update cross-references
- Insert page break
- Insert non-breaking space
- Clean document properties
- Create comparison document



- Copy/Rename worksheet
- Insert column
- Format column width
- Format text
- Sort
- Filter
- Remove duplicates
- Divide
- Count
- Sum
- Average
- Prepare to print
- Pivot Table
- Pivot Chart

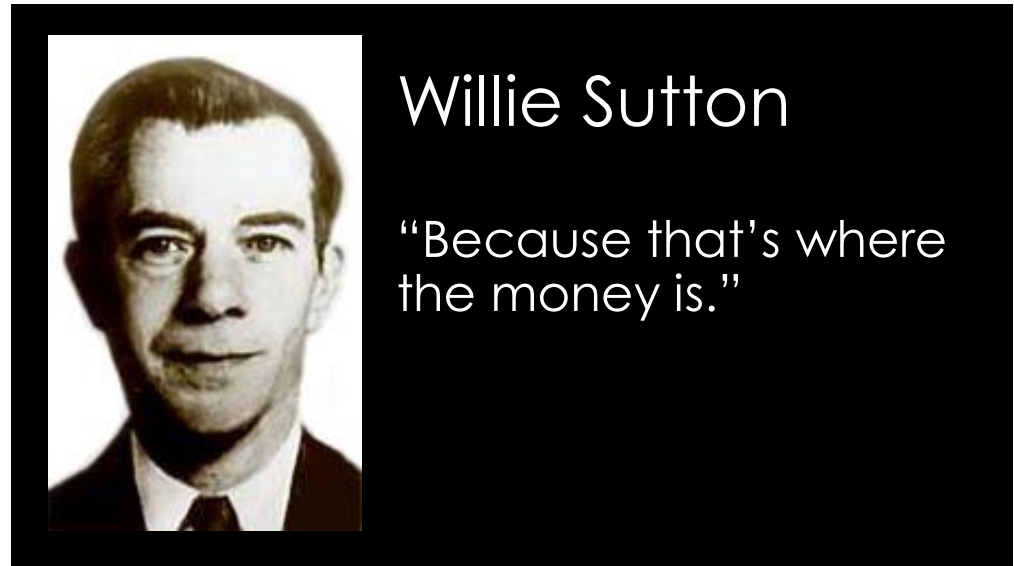
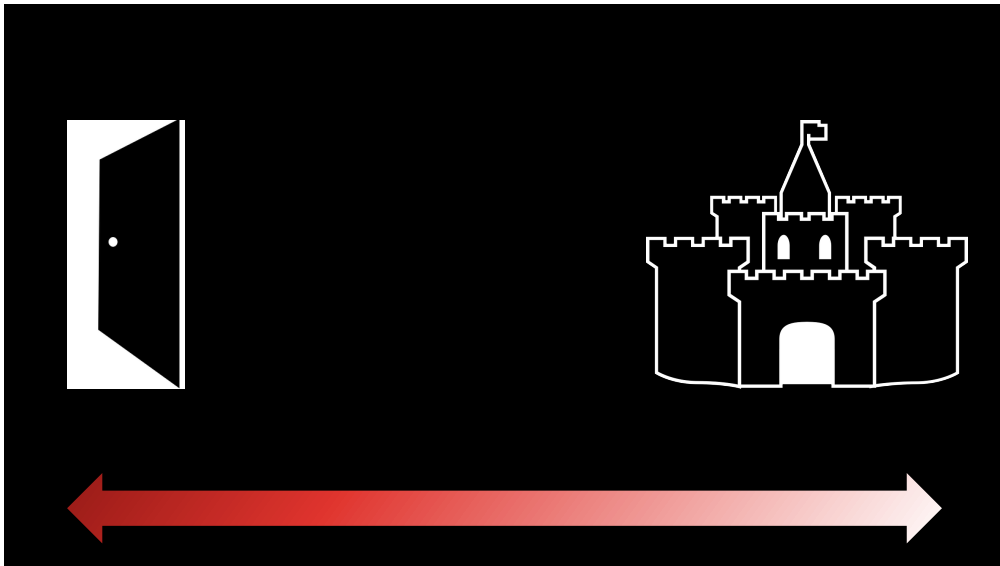
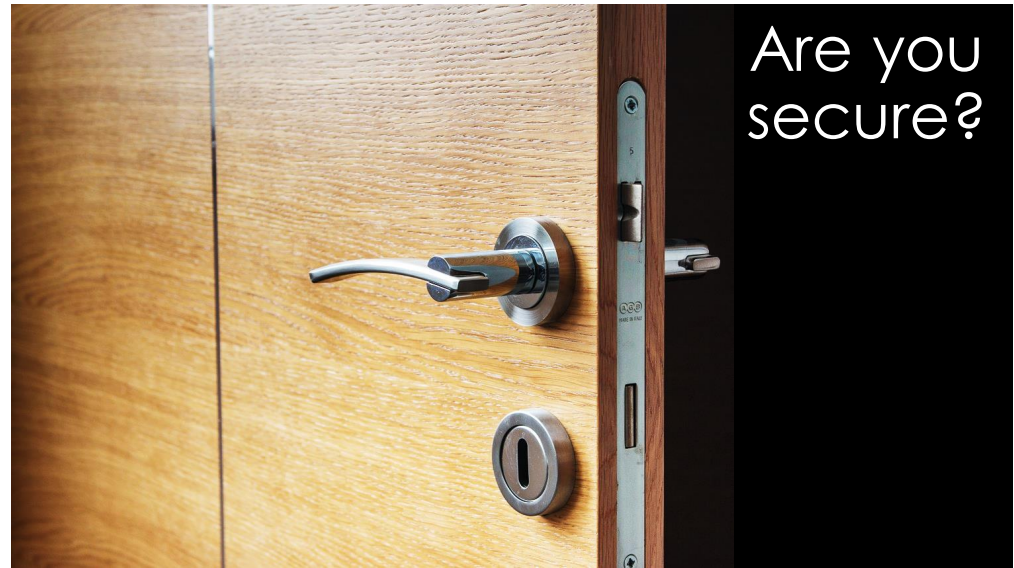


- Convert: Word & Excel → PDF
- Create single PDF from 2+ files
- Recognize text (OCR)
- Extract page
- Highlight text
- Redact information
- Insert footer
- Create bookmark
- Create internal link
- Remove hidden Info
- Password protect



Are you  
paperless?





# In the Cloud?

## Court (W.D. Va.):

"Harleysville has conceded that its actions were the cyber world equivalent of leaving its claims file on a bench in the public square and telling its counsel where they could find it."



## People + Tech + Processes

**People** – Train the weakest link ("human engineering")

**Technology** – E.g.,

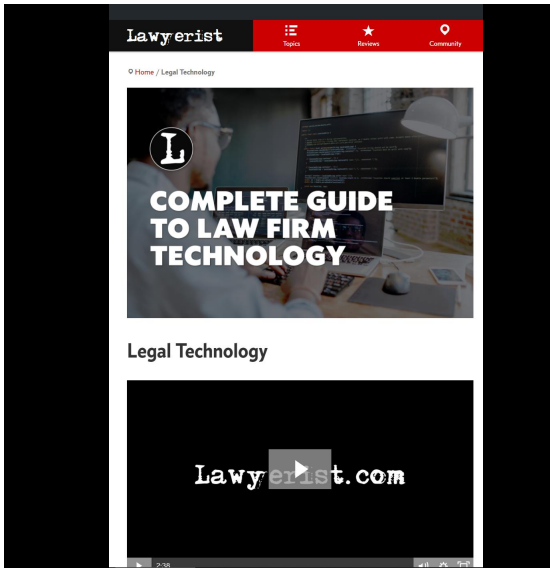
- Firewalls
- Incident detection
- Encryption
- Require strong passwords

**Processes/Controls** – E.g.,

- Policies + Education + Awareness + Diligence
- Limited access privileges
- Multi-factor authentication (2FA)
- Prohibiting shared passwords

## Cybersecurity Tips

- **Encrypt your devices** (BitLocker or FileVault)
- **Update your tech:**
  - Devices (e.g., mobile 3-year security guarantee)
  - Operating systems (e.g., Windows, MacOS)
  - Browsers (e.g., Chrome, Firefox, Edge)
  - Antivirus
- **Use Password Managers + strong passwords**
- **Use multifactor authentication** (2FA or MFA)



— THE —

# SMALL FIRM ROADMAP

A SURVIVAL GUIDE TO THE FUTURE OF YOUR LAW PRACTICE

**Lawyerist**

AARON STREET, SAM GLOVER,  
STEPHANIE EVERETT, AND MARSHALL LICHTY



messagebook

### Client Intake Form

Law Firms R Us Client Questionnaire

Print Next

Personal Information Complaints Existing Conditions

**Basic Information**

First Name\* Last Name\*  
 Martin Schtebday

Date of Birth  
 3 3 3333

Male\* Female\*

**Contact Information**

Email\* Preferred Phone\* Cell  
 martin@zooack.com (760) 345-2643

Address\*  
 weefee

City\* State\* Zip\*  
 weefee AK - Alaska 99503

**Emergency Contact Information**

Contact Name Phone Relationship  
 2363292 9332 922-2322

**Doctor Information**

Physician Name Phone



## Client Relationship Software



## E-mail Marketing Automation

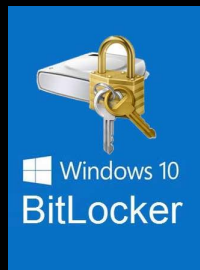
**TYPES OF DRIP CAMPAIGNS**

- TOP-OF-MIND DRIPS**: Top-of-Mind drips help keep your leads engaged with your company throughout the sales process.
- EDUCATIONAL DRIPS**: Educational drips provide relevant product information to prospects to prepare them for purchase.
- RE-ENGAGEMENT DRIPS**: Re-engagement drips are designed to win back the interest of your colder leads.
- COMPETITIVE DRIPS**: Competitive drips target your competitor's customers with the benefits of switching to your product.
- PROMOTIONAL DRIPS**: Promotional drips entice prospects with limited-run promotions and special pricing offers.
- TRAINING DRIPS**: Training drips can be used for new clients or internally used to move readers through a training program.

**BEST PRACTICES**

- TARGET YOUR CAMPAIGNS**: Tailor your campaigns so that they target each segment of your prospect list with precise, personal messages. The deeper your segmentation, the more personal your messages can be.
- DESIGN FOR YOUR AUDIENCE**: Make it easy and painless for your prospects to express their preferences regarding frequency of messages, type of content they would like, and how they would like to receive that content.
- TEST, TEST, AND TEST AGAIN**: Test your campaigns' effectiveness and continually evaluate which aspects are working best. Review campaign goals, KPIs, and metrics like opens, click-throughs, and bounces.
- UTILIZE YOUR TOOLS**: Marketing automation tools also provide segmentation tools, social media connectors, analytics, and CRM integration that make using drip marketing campaigns even easier.

## Encryption + VPN



## Legal Research

## Natural Language

Elements of a breach of contract claim in Minnesota

## Document Assembly

# HotDocs

The screenshot shows the HotDocs interface. On the left, there is a blue sidebar with navigation options: Options, Document preview, Answer summary, and Help. The main content area displays a document form for 'John Smith Simple Will'. The form includes fields for First Name (Courtney), Middle Name, Last Name (Smith), Date of Birth (11/14/1980), and Child Gender (Female). Below these fields, there is a section for 'Child is from' with radio buttons for 'Current marriage' and 'Prior marriage'. A list of children is shown on the right, with '1: Courtney Smith' selected. The interface is clean and professional, with a clear focus on the document content.

# Templafy

The screenshot shows the Templafy interface. On the left, there is a sidebar with navigation options: Administration, Configuration, and Other. The main content area displays a 'Pricing quote' form. The form includes fields for 'Date\*' (2018-12-03), 'Client ID\*' (00001), and 'Choose Product\*' (Product A). There is also a 'Choose Pricing Plan\*' dropdown menu. The interface is clean and professional, with a clear focus on the pricing quote content.

# Docassemble

The screenshot shows the Docassemble interface. The main content area displays a template editor for a document. The editor includes a 'File name' field, an 'Upload a template file' section, and an 'Edit text files' section. The 'Edit text files' section shows a code editor with a template for a letter. The code includes variables like 'client' and 'lawyer'. The interface is clean and professional, with a clear focus on the template editing process.

## HOW TO DIY DOCUMENT ASSEMBLY

<https://lawyerist.com/blog/do-it-yourself-document-assembly/>



Sam is a lawyer who decided to teach himself to code, because I'm a believer that technology can help bridge the access-to-justice gap. Sam works as a Project Manager for the Florida Justice Technology Center and Measures for Justice.

[@samuelharden](https://twitter.com/samuelharden)

[www.samharden.github.io](https://www.samharden.github.io)

# Project Management

# Kanban

To Do

Doing

Done

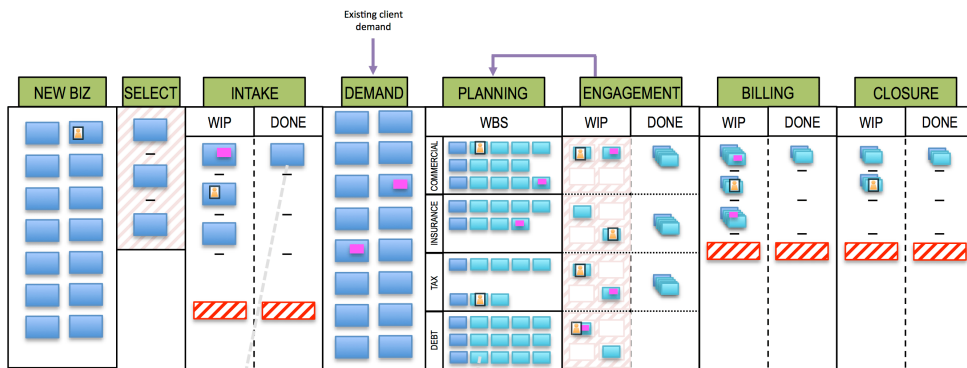
Draft Rogs

Win Case

Draft Demand Letter

Call Client

File Complaint



Client: Client ref: #123

- Due Diligence
- Certificate of Interest
- Credit check
- Engagement Letter
- Billing process
- Setup on Finance

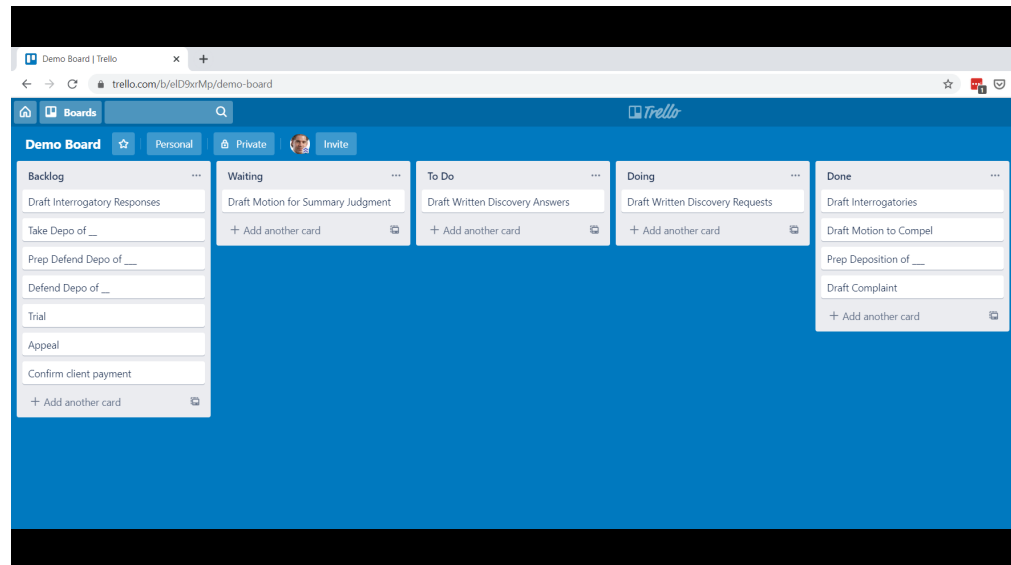
Client: Matter ref: #ABC

Activity description

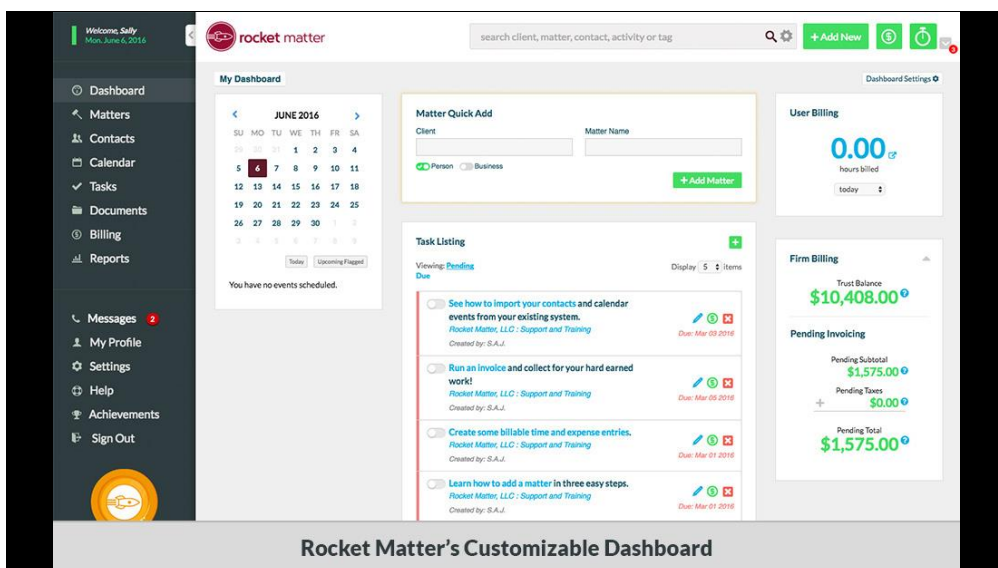
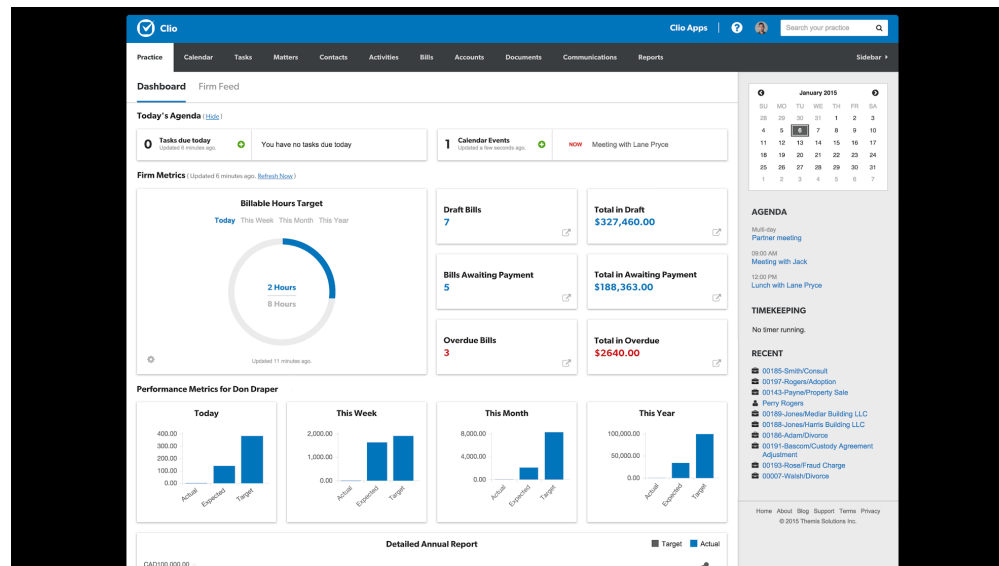
Avatars (one per person, not multiple!)

Blockers

Limits



# Practice Management



Rocket Matter's Customizable Dashboard

# Calendar Automation

# Calendly

The screenshot shows the Calendly interface for John Smith. At the top, there is a profile picture and the name "John Smith". Below this, it indicates a "15 Minute Meeting" and that "Times are in Pacific Time - US & Canada". The main section is titled "Select a Day" and displays a weekly calendar view for the week of June 27 to July 5. The days are represented by circles: Tuesday (Jun 27) is unavailable, Wednesday (Jun 28) is available, Thursday (Jun 29) is available, Friday (Jun 30) is unavailable, Monday (Jul 3) is unavailable, Tuesday (Jul 4) is available, and Wednesday (Jul 5) is available. A dashed line separates "THIS WEEK" from "NEXT WEEK", with a link "After Jul 5" to view the following week.

## Schedule Appointment

1 Choose

**Consultation**  
50 minutes @ \$45.00

Returning? [Log In](#)

[MORE TIMES >](#)

TOMORROW	FRIDAY	NEXT WEEK
Thursday January 17	Friday January 18	Monday January 21
9:00am <a href="#">Continue +</a>	9:00am	9:00am
<a href="#">Add a Time...</a>	9:50am	9:50am
<a href="#">Recurring...</a>	10:40am	10:40am
	1:00pm	1:00pm


# Cloud Automation


The screenshot shows the Zapier interface for creating a workflow. The workflow is titled "Attach Files to Zendesk Tickets" and consists of four steps: 1. New Attachment (Trigger), 2. Find a Ticket (Search), 3. Attach File to Ticket (Action), and 4. Upload File (Action). The current step is "Select Box Action", which offers several options under "CREATE" and "SEARCH". The "Upload File" option is selected. The "Upload File" action description is: "Copy an already-existing file from another service to Box." The "Continue" button is visible at the bottom right.

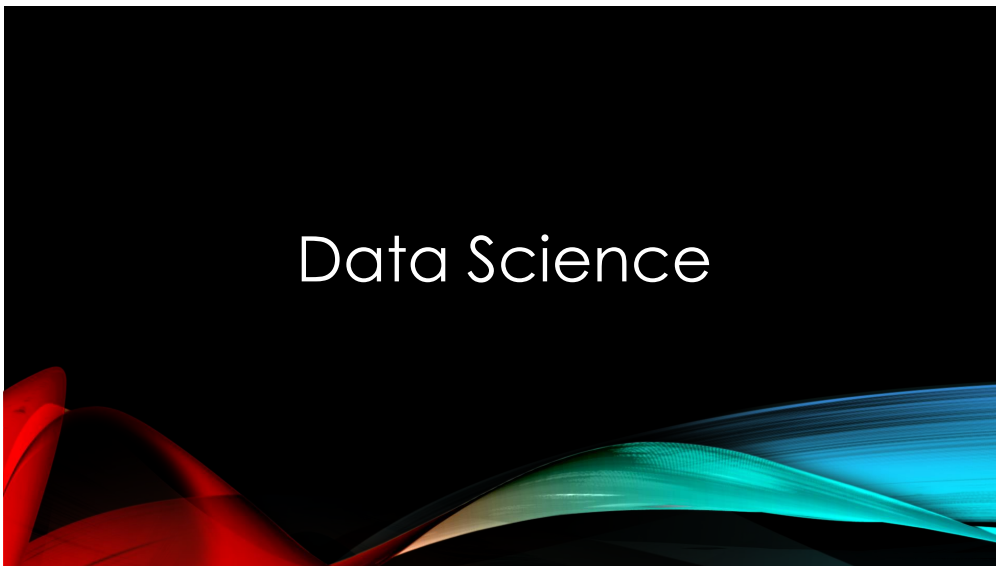
Demo flow IFTTT

---

CONFIGURE CALLBACK URL >

ON  NEW OBJECT SAVED (NEWPROPOSAL) [icon] [icon]

 FIND FOLDER [icon] [icon] [icon]



Analytics for the Matter ... Hi, Damien

Overview Party Judge Firm Attorney

**Joni Chang** 638

**Joni Chang** 638 2800 Semiconductors, Electrical & Optical INST. RATE 72% CLAIM CASE RATE 87%

**Jameison Lee** 600 2400 Communications 71% 76%

**Kevin Turner** 582 2800 Semiconductors, Electrical & Optical 79% 79%

**Sally Medley** 541 2400 Communications 73% 79%

**Thomas Giannetti** 520 2400 Communications 68% 59%

**Michael Zecher** 507 2400 Communications 42% 83%

**Karl Easthorn** 506 2400 Networks, Cable, & Cryptography 70% 85%

**Brian McHamars** 503 2800 Semiconductors, Electrical & Optical 68% 76%

**Jennifer Blak** 488 2800 Semiconductors, Electrical & Optical 67% 81%

**Miriam Quinn** 473 2400 Communications 59% 59%

**Bryan Moore** 465 2400 Communications 65%

Chat with support

2000

2020

202x

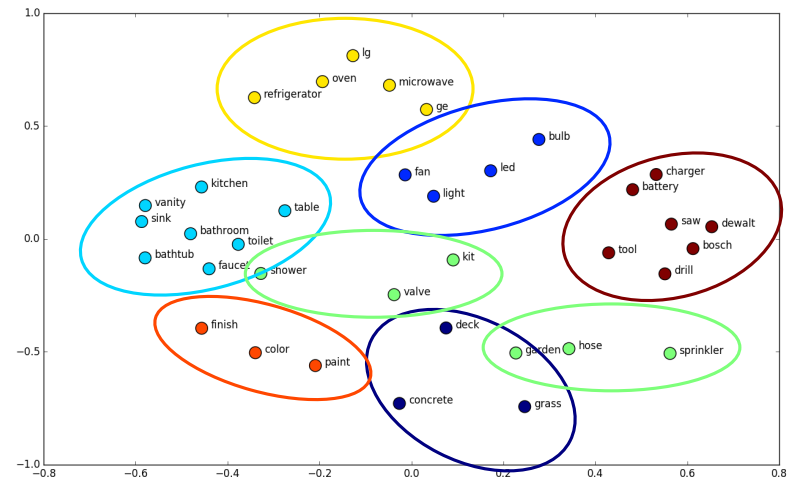
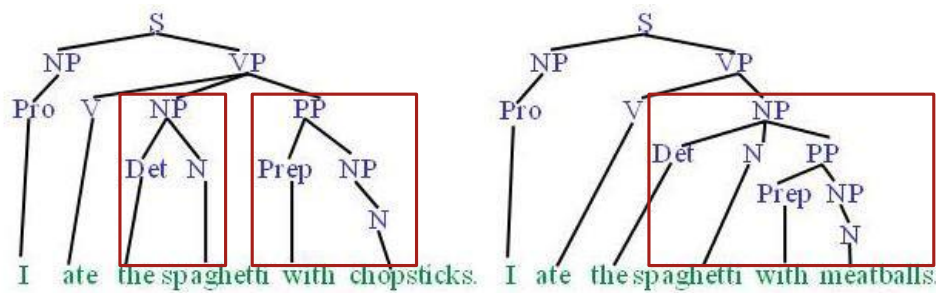
# Tomorrow's AI for Lawyers

As Gregor Samsa awoke one morning from uneasy dreams he found himself transformed in his bed into a monstrous vermin.

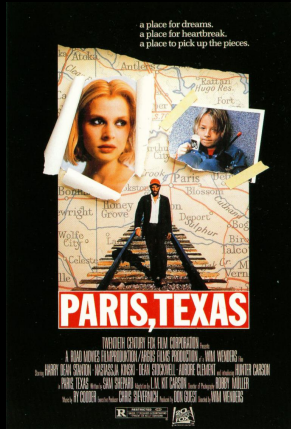
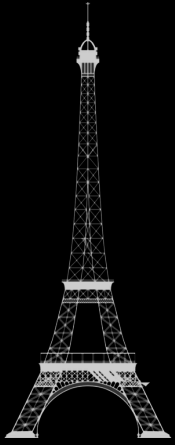
*Kafka, Metamorphosis*



## Natural Language



## Natural Language



## Natural Language

Motion to Dismiss

Demurrer

Minnesota

California

Biases

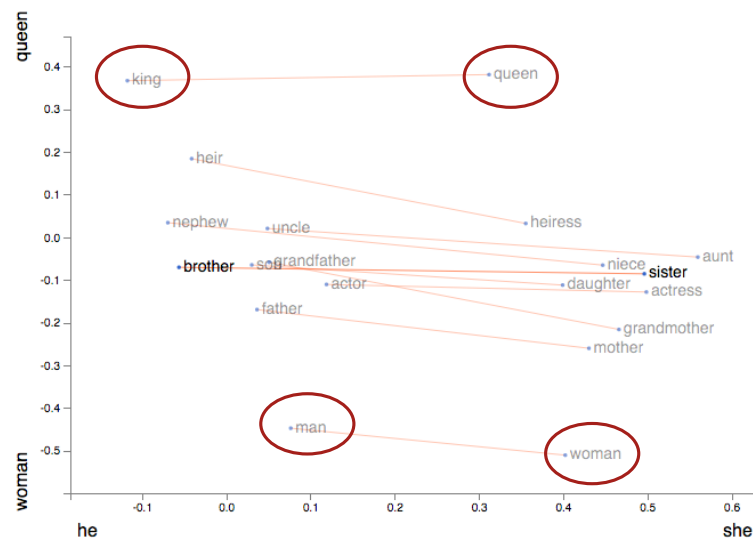
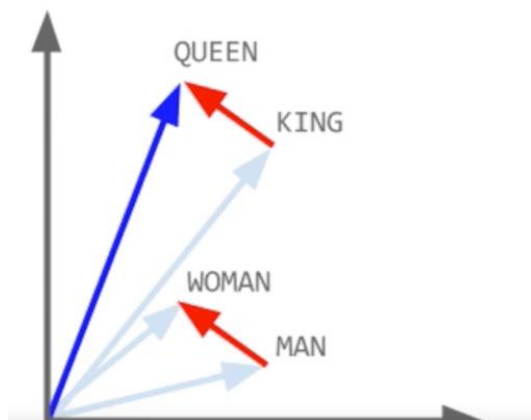
Training Data = Systemic Biases

“How the world is.”

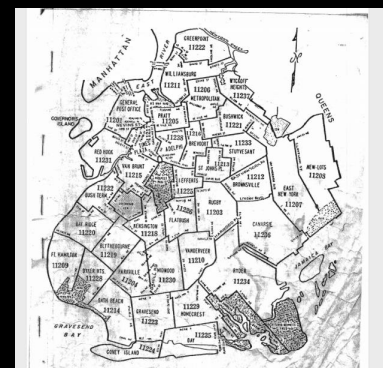
NOT “How it *should* be.”



King – Man + Woman = Queen



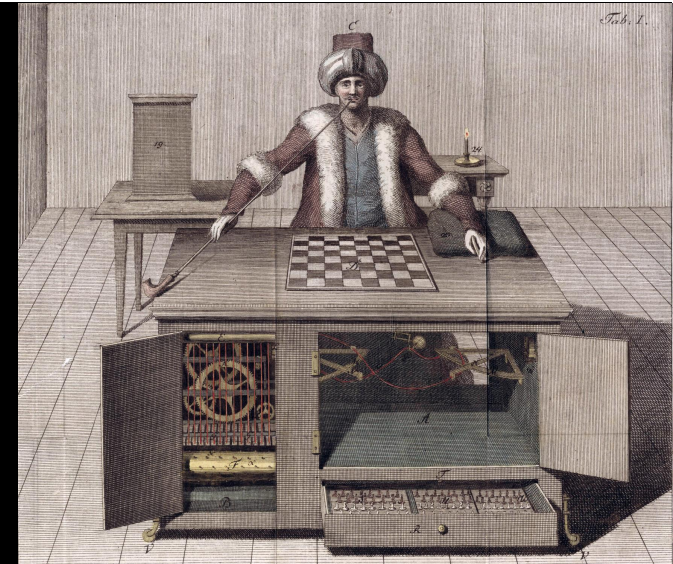
## Non-malicious Human Bias



## Non-malicious Human Bias



## Human Error



## Today: Biases are Everywhere

Require better than our current world?  
Better than humans?

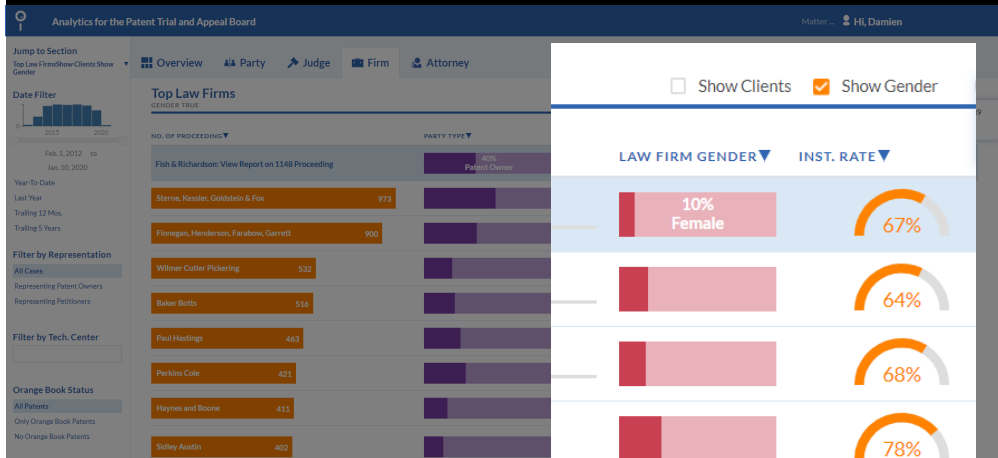
## Current Legal Research/Analytics



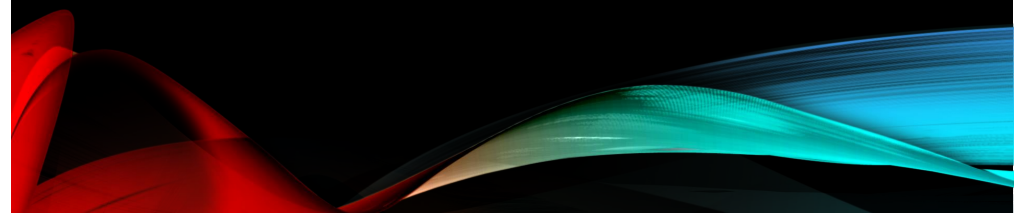
What opinions get published?

- “This case isn’t important”
- “One for each clerk”
- “Not for publication”

# Systemic Bias: Female Litigators



# Hold AI to a higher standard?

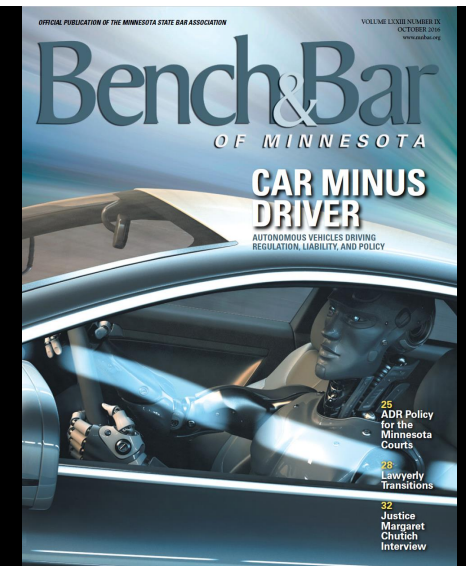


“As good as humans”?



“Slightly worse” still okay?

# Autonomous vehicles

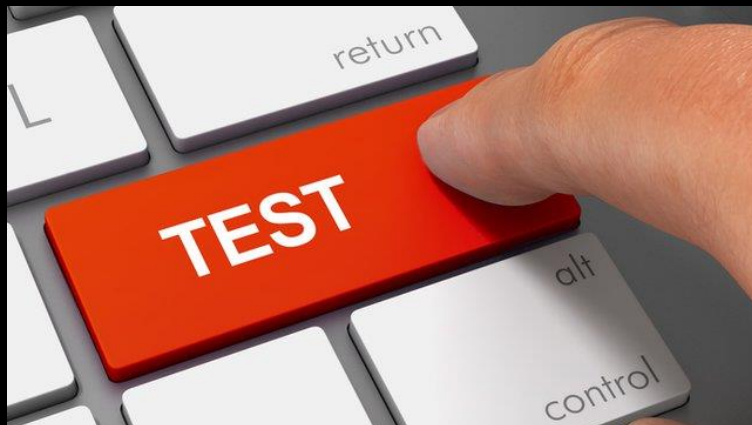




How often do \_\_\_\_\_ get it wrong?

- Judges?
- Juries?
- Legal Researchers?
- Brief writers?
- Human citators?

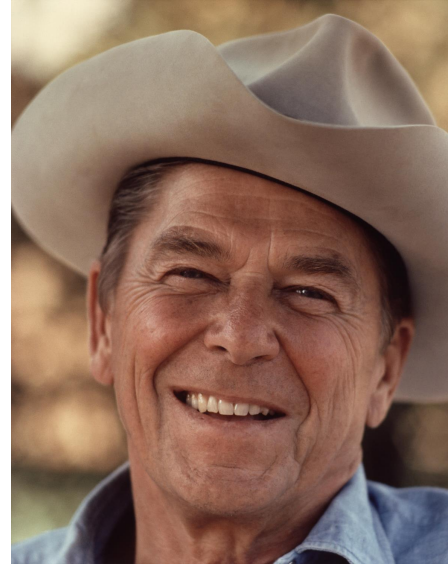
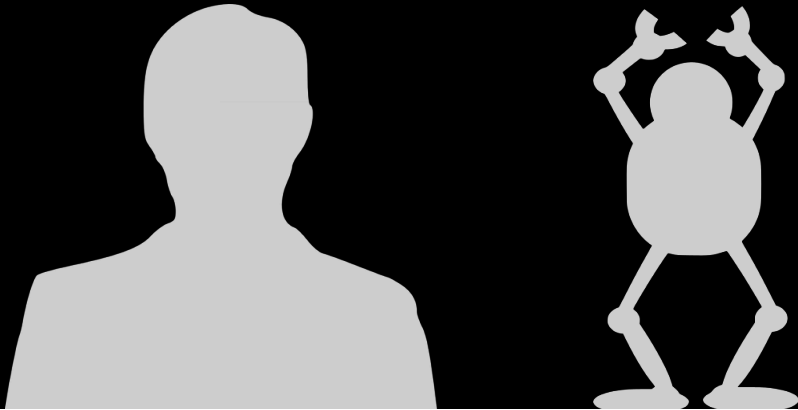
How do you know?



Overcoming Biases

Potential solutions

Identify/avoid current biases



Trust but verify

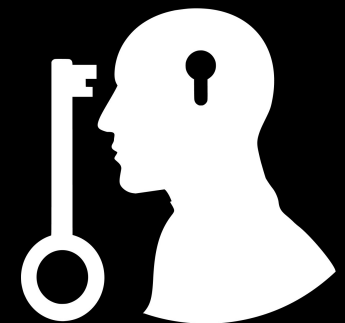
Doverjai, no proveryai  
Доверяй, но проверяй;



Account for systemic biases?



Regulation?



# AI and Competence

The world's  
a-changin'

Malpractice if  
you **DON'T** use  
AI (or data)?



30-year-old medical devices?  
And procedures?



What questions do you have?