The Age of AI in Legal: A Threat or Panacea?

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AGENDA

• The real AI in five minutes
• AI in legal: the present
  • E-discovery: predictive coding and visualizations
  • Configurable expert systems: data privacy advisors
  • Document assembly: contract express
  • Contract abstraction: eBrevia, Kira, RAVN
  • Analytics on practice metrics and research: Lex Machina, Juristat
• Implications and conclusions
• Q&A
ARTIFICIAL INTELLIGENCE IN ABOUT 5 MINUTES
artificial intelligence is any intelligence not exhibited by humans or animals, often when mimicking cognitive functions like learning and problem solving.
what science fiction taught us about AI
AI in the real world

- Cars
- Home
- Phone
- Shopping
- Jeopardy
- Strategy games
- Stocks
- Genetics
The current AI wave is poised to finally break through

Investment in AI is growing at a high rate, but adoption in 2017 remains low

In 2016, companies invested $26B to $39B in artificial intelligence

Tech Giants
$20B to $30B

Startups
$6B to $9B

3x External investment growth since 2013

20% of AI-aware firms say they are adopters

- 3+ technologies
- 2 technologies
- 1 technology

41% of firms say they are uncertain about the benefits of AI

31% Partial adopters

10% Experimenters

40% Contemplators
two perspectives on “friendly” AI

And so I think the right emphasis on AI research is on AI safety. We should put vastly more effort into AI safety than we should into advancing AI in the first place.
- Elon Musk

The so-called control problem that Elon is worried about isn't something that people should feel is imminent. We shouldn’t panic about AI.
- Bill Gates
AI is powering every part of our world, from cars to thermostats to stock portfolios. It is helping itself learn and be smarter, accelerating an imminent AI-world.

Human + machine > human or machine
AI in Legal
Artificial intelligence in legal work

- Automation
- Pattern recognition
- Prediction
- Information retrieval
A.I. Is Doing Legal Work. But It Won’t Replace Lawyers, Yet.

By STEVE LOHR  MARCH 19, 2017

Impressive advances in artificial intelligence technology tailored for legal work have led some lawyers to worry that their profession may be Silicon Valley’s next victim.

But recent research and even the people working on the software meant to automate legal work say the adoption of A.I. in law firms will be a slow, task-by-task process. In other words, like it or not, a robot is not about to replace your lawyer. At least, not anytime soon.

“There is this popular view that if you can automate one piece of the work, the rest of the job is toast,” said Frank Lang, a
What types of artificial intelligence solutions in the market are mature and being adopted?

What will be AI’s impact for legal professionals?
Artificial Intelligence in Legal

AI in the law

AI is pushing new solutions in legal

A prediction model for Supreme Court decisions was built with 70% accuracy

A large law firm combined an expert system, the advice of lawyers, and legal research from managed services to create software that dispenses legal advice around data privacy breaches

A major insurance fund now resolves 8.5% of cases earlier, using a custom made early case assessment tool that leverages machine learning in discovery
Machine learning in ediscovery
Solving the problem of Big Data

Cull down documents and group similar ones together
- Near-duplicates
- Same email conversation
- Conceptual clusters

Predictive coding: workflow to use machine learning on one set of documents and assign categories to a wider set of documents

Automated predictive coding workflows: learns and auto-predicts while a regular human review progresses

Maturity and adoption
- This technology is mature but still not well-understood. The % of people who have tried using analytics is far greater than those that use it regularly.

Impact on legal practice
- This technology creates efficiencies that should reduce the need for contract review attorneys. However, external experts that can maximize the efficacy of a given machine learning solution will still be needed.

What to watch for
- Always evaluate quality and cost with respect to the total discovery project. Vendors that promise to reduce review costs by x% as a justification to pay a premium for their technology are to be treated with caution.

The future vision
- As machine learning in ediscovery gains more adoption, the hope is that discovery costs and burdens will generally diminish, compared to their current outsized levels. Potentially in the future, highly relevant evidence can be exchanged in discovery with very little human intervention.
Configurable expert systems
Decision trees for legal advice

Decision trees: questions that link to content and provide a customized solution

Significant research going forward at Georgetown Law and with startups

Domains: Data privacy, tax advice, judicial sentencing

Maturity and adoption
- This technology is well-established, as legal expert systems work dates back to the mid-90s, but adoption and deployment on use cases is still low.

Impact on legal practice
- Attorneys whose practice is primarily the filling of a template or reasoning through a checklist of inquiries

What to watch for
- Help facilitate the use of these systems with your lawyers, and encourage the firm to gain more expertise and invest into learning. Akerman, for example, has used a configurable expert system to transform how they provide legal advice.

Future
- Expert systems should become a part of our daily lives. It is the lowest hanging fruit in the artificial intelligence realm, and combined with chatbots, natural language processing and neural nets, it provides a framework and experience that really approximates getting legal advice.
Document assembly
Drafting contracts, patents and other legal documents through AI-powered engines

Contract drafting assistants can help generate first drafts

Massive business use case for self-service contracts (i.e. sales people needing an SOW, or high-volume standard NDA creation)

Document assembly interacts with fields and structured data as a precursor to “smart” contracts on the blockchain

Maturity and adoption

• This technology is still maturing. Training the engine to understand the logic, issues, and important clauses in documents requires substantial up-front investment.

Impact on legal practice

• Attorneys whose practice is primarily the filling of a template or reasoning through a checklist of inquiries

What to watch for

• Consider experimentation here within the law firm’s own operations—NDAs, vendor agreements, business associate agreements, engagement letters, settlement agreements.

Future

• Among attorneys, this technology will face hurdles to adoption. Transactional attorneys take pride in their unique value in crafting language that achieves their clients’ objectives. The more immediate target user segment is legal departments and procurement groups. However, as contracts become fully automated, document assembly will become more necessary for engagement within the CLM ecosystem.
Data extraction and analytics
Pulling important data points from contracts and other documents

Extracting key data points from documents, storing them into a database, and presenting insights on the data

Use cases include lease reviews, obligation management and due diligence

Deviation analysis (how counterparty-drafted contract drafts deviate from a client’s own standard provisions) requires machine learning and training

Maturity and adoption
- This technology is maturing quickly. The primary hurdle is training the various engines on the different domains.
- The most immediate application is in due diligence and in highly standardized contracts (i.e., ISDA)

Impact on legal practice
- Due diligence fees may face substantial pressure from automation, along with alternative legal service providers

What to watch for
- Early adoption or integration could be a competitive advantage in bidding for deal work
- Consider piloting on law firm’s own documents

Future
- Data extraction, in the basic use case, is transition tech—how clients will migrate to a full CLM ecosystem. With “smart contracts” and contract assembly platforms, data extraction will be less interesting while data analysis will become increasingly valuable
- In larger, more complex deals, use case in due diligence will remain
Analytics on practice metrics and billing
Gaining insights from matter management data to best position value for clients

Pattern analysis on billing rates, utilization, task complexity, outcomes

Maturity and adoption
• This technology is still evolving. Several solutions exist in the market but finding reliable data is the first hurdle.

Impact on legal practice
• Could drive the way services are delivered, and by whom
• Will become important proof points for competitive advantage

Should a corporate legal department consider a convergence initiative? What data differentiates a firm?

What to watch for
• Corporate legal departments are incented to do this, as their view of the data will span several law firms
• Law firms need self-analysis to pre-empty justification of value to clients

With more transparency, may lead to a marketplace of legal services

Future
• May lead to more pressure on mid-tier full-service firms—high-end and boutique practices have easier value prop
• A marketplace of legal services?
IMPLICATIONS AND CONCLUSIONS
## What are the implications?

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<th>Legal AI movement</th>
<th>Implications for legal professionals</th>
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| Machine learning to reduce documents in ediscovery and investigations              | • Earlier case assessment is resulting in reduced litigation volumes, earlier settlement advice  
• Cost of discovery is going down; document review on large volumes of documents will decrease, potentially resulting in alternative billing structures |
| Expert systems and AI-powered legal research                                       | • Legal research should become more efficient, reducing legal spend across practices  
• Law firms may be able to innovate embedding regulatory advice in expert systems  
• Ideally, increased legal access for the 80% of unmet civil legal needs in the US (and more globally) |
| Document assembly                                                                 | • More self-service contracts, more reliably drafted contracts in high volumes                                                                                                                                                     |
| Data abstraction                                                                  | • Expected lower due diligence costs, resulting in lower deal fees for transactional attorneys  
• Improved corporate legal department visibility into obligations and expected                                                                                                    |
| Practice analytics                                                                | • Transparency into rates and outcomes will create a more efficient market, with less emphasis on relationship building  
• Increased need for accurate billing from outside counsel                                                                                 |
Conclusions and guidance

Become an expert

- In-house counsel are getting smarter about this, but may still rely on outside counsel for advice on which technology is real
- Invest into POCs or pilots, preferably on live matters, and document your insights and findings

Know your firm

- Consider what products are a good fit with existing systems—the first step is the most important
- Understand the domain of AI and see how close it is to your firm
- Focus on activities: do your lawyers file patents, document immigration papers, litigate securities class actions, provide HIPAA advice? Is there a tool already in that domain?
- Work with IT

Prepare your attorneys

- Don’t fear change. Human + machine > human | machine (but sometimes machine > human, if it comes to it)
- Focus on ambitious attorneys that want to advance the firm’s capabilities
  - Nothing against seasoned lawyers, especially if they are forward-thinking, but change costs are already high

Join the community

- A lot of this information is daunting, but if you go to enough of these types of sessions, you’ll get a good sense quickly
- Ask for demos and engage with peers
More resources

• Dan Katz: “AI and the law, a primer”

• ILTACON 2017 AI series

• alt.legal on AboveTheLaw

• Akerman Data Law Center

• Google it!
Q&A