

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. The shapes are primarily triangles and polygons, creating a modern, tech-oriented aesthetic. The text is centered on a white background that is partially framed by these blue shapes.

The Impact of Artificial Intelligence on The Legal Profession

How Emerging Technology will Change the Way You Work

Are the robots coming for my job?



HAL IBM

AI and The Legal Community

- ▶ What is Artificial Intelligence?
- ▶ What is its impact on the practice of law?
- ▶ Why should we care?
- ▶ There is an urban myth that the legal profession is technophobic and thus slow to adopt new technologies.
 - ▶ Not necessarily true

What is LegalTech?

- ▶ 3 categories of technology and software used in the legal profession
 - ▶ Technologies facilitating access to and processing of legal data and lawyers
 - ▶ Better access to lawyers and legal data - research tools
 - ▶ Support solutions
 - ▶ Enhance case management and back-office work - billing and business development
 - ▶ Substantive law solutions
 - ▶ Execution of specific legal tasks - contract drafting and analysis, e-discovery, blockchain based solutions such as smart contracts
- ▶ LegalTech tools in practice fall into the category of improving or changing the way of handling tasks.

“Disruptive” Technology

- ▶ Technology changes how we view the world.
- ▶ Technology changes how we do every day things.
- ▶ Technology always disrupts the market, profession, labor force.

“The illiterate of the 21st Century are not those who cannot read and write but those who cannot learn, unlearn and relearn.”

– Alvin Toffler, Powershift: Knowledge, Wealth, and Power at the Edge of the 21st Century

AI and Machine Learning - What is it and why does it matter to the Legal Profession?

- ▶ AI Defined:
 - ▶ *“The science and engineering of making intelligent machines” -John McCarthy, What is Artificial Intelligence, 2007*
 - ▶ Many branches - machine learning, predictive analytics, natural language processing, (translation, classification and information extraction)
 - ▶ Possible due to the exponential growth in computational power
 - ▶ *Moore's Law - CPU processing power will double every two years*
- ▶ Weak AI versus Strong AI
 - ▶ Seems intelligent but has defined functions versus problem domain understanding
 - ▶ Data driven statistical models versus defined functions and “learning” algorithms
- ▶ A “chess playing” computer cannot solve legal problems.

‘It’s only AI until you know what it does, then it’s just software’

Richard Kemp, Founder, Kemp IT Law

Machine Learning

- ▶ Does not require explicit programming to create an outcome
- ▶ Computer algorithms that have the ability to “learn” or improve in performance over time on **some task or specific tasks**
- ▶ Predict outputs or outcomes based on relationships between previous inputs and outcomes
- ▶ Big Data
 - ▶ Massive volumes of both structured and unstructured data so large it is difficult to process using traditional databases and software techniques

Natural Language Processing (NLP)

- ▶ The application of linguistics, statistics and computer science to problems related to spoken or written language
- ▶ Convert samples of human language to machine readable format
- ▶ Conversion of computer data into readable human language
- ▶ “Memorization” of certain words, patterns and statistical relationships between words
- ▶ Semantics and pragmatics to “understand and/or interpret” written or spoken language

So what are some of the new technologies in LegalTech?

- ▶ E-Discovery/Forensic Investigations
 - ▶ First “big” data application for law - emerged in early 2000’s
 - ▶ Predictive Coding (Technology Assisted Review - TAR)
 - ▶ Machine Learning and various algorithmic tools for concept searching, contextual searching and metadata search
 - ▶ Experienced legal professionals “train” the software by example relevant documents and data

So what are some of the new technologies in LegalTech?

- ▶ Document Assembly and Analytics
 - ▶ Traditional “bread and butter” business of associates in law firms.
 - ▶ Document automation through application of machine learning to appropriately assemble segments of “pre-existing” text and/or data via inferred “logic”
 - ▶ Wizards - users can create their own rule sets and data and thus “assemble” the appropriate language pertinent to the matter at hand.

So what are some of the new technologies in LegalTech?

▶ Blockchain

- ▶ Technology platform upon which many applications can be built
 - ▶ Cryptocurrency transactions (Bitcoin)
- ▶ Blockchains can be used to replace anything that needs authentication or signatures
 - ▶ A “decentralized digital” ledger
 - ▶ Powerful cryptography algorithms and decentralized computing power
 - ▶ Redundantly verifies transactions
 - ▶ Recorded in a public digital ledger which is available to “the world”
- ▶ Trust and verification of transactions
 - ▶ Cannot be altered by third parties
 - ▶ Makes centralized intermediaries redundant by providing a digital ledger that ultimately verifies every transaction.

So what are some of the new technologies in LegalTech?

▶ Smart Contracts and Blockchain

- ▶ A software application that replaces part or all of a contract with sets of computer code(s) that essentially automate contractual functions between parties
 - ▶ A set of promises specified in digital format
 - ▶ Includes protocols within which parties perform on the promises
- ▶ Self executing and self enforcing
- ▶ Example Insurance Contract for Rental Cars
 - ▶ Automatically adjusts premium based on predefined risk factors (average speed and driving style)
 - ▶ Gauged and processed without any human involvement in the final version
- ▶ Notary and Registry Services
 - ▶ Blockchain gives a unique digital identifier to documents which cannot be altered by third parties
 - ▶ Verifies all subsequent version of a document without the need to share the document.

So what are some of the new technologies in LegalTech?

- ▶ Legal Reasoning and Decision Support
 - ▶ Expert system that formalizes and models “tribal” knowledge
 - ▶ Use cases:
 - ▶ Highly frequent case modelling
 - ▶ Complex assessment structures
 - ▶ Interpretation of large data sets
 - ▶ Contract Negotiations
 - ▶ Apply machine learning to interpretation of redlines and deviation from standard acceptable language.

Corporate Legal Operations Support

- ▶ Contract Compliance and Analytics
 - ▶ Apply machine learning:
 - ▶ Regulatory changes and enforcement
 - ▶ Internal/External audit
 - ▶ Weekend research project(s)
 - ▶ NDA Non-Standard Language Demonstration
 - ▶ Latent Semantic Indexing
 - ▶ Days to Pay Invoice Demonstration
 - ▶ Natural Language Processing

LegalTech and AI will. . .

- ▶ Will NOT in any near term replace lawyers or legal professionals
- ▶ Will shift focus from mundane and repetitive work to more meaningful, creative and “high-value” tasks of legal practice
- ▶ Transform how some legal processes are performed
 - ▶ Automate, computerize and streamline manual tasks
 - ▶ Low level and repetitive such as document management and review, billing, filing, accounting
 - ▶ Routine and repetitive work goes to the machine(s)
- ▶ Not replace tasks which require human interaction such as creativity or sensing emotions
 - ▶ Investigation, legal writing/interpretation, advice and communication with clients

It's not a battle between machines versus lawyers

- ▶ New Mindsets and Skillsets within the legal community
 - ▶ Understanding and utilizing the new available technologies
- ▶ Work with and leverage the machine(s)
- ▶ Decompose and disaggregate legal work into various tasks without undermining quality
- ▶ Competitive Advantage in the Market
- ▶ Adopt and lead the way through proactive use of new technologies

Question and Answer Session

