Data for AI Community

Building a Star Trek AI for the Legal Industry?

LexisNexis says, “Make it so…”

Presented by Rick McFarland
Chief Data Officer
LexisNexis Legal & Professional
Let’s watch Captain Kirk do some research in the 23rd century (in 1966!)
Today’s Agenda

Problems with Today’s Digital Assistants
Making Digital Assistants Better Now
What Does the Future Look Like?

Credit: Cult of Mac
The Problems with Today’s Digital Assistants

Most Digital Assistants today are consumer-grade

Easy questions – no problem…what happens when the questions get harder, i.e., more professional-grade?
Three Things that Make a Lawyer
1. Legal Education
2. A Mouth
3. Library or Knowledge Base

Three Things to Make Legal DA
1. AI
2. Digital Assistant Infrastructure
3. Data Partnerships

When building a Legal Digital Assistant, it helps to understand what is required to create a Lawyer.
Three Things to Make Digital Assistant Better

Better AI (Brain)
• Needing a better brain
• Taking context into consideration
• Batman v. Commissioner example
• Contextual AI - BERT
• Send BERT to Law School
Three Things to Make Digital Assistant Better

Better Infrastructure

- Most digital assistants run on out-of-the-box infrastructure from providers like Amazon (AWS), MSFT (Azure), etc.
- Transcription (convert speech to text)
- What about Latin, accents, regional sayings?

Even harder…text-to-speech or “speech synthesis”!

Note in the Star Trek video, the computer never said: “I found this on Wikipedia, check it out!”
Three Things to Make Digital Assistant Better

Better Data Partnerships (Content)

The content that the bots goes to is very important, especially for LexisNexis DA’s. They go outside to look for the info... for example, how many cups in a gallon (e.g., a dictionary, Wikipedia) or the score of last night’s baseball game (e.g., ESPN).

Harder questions call on other content sources – “read me the top story in The New York Times”

Legal content is similar and unique – “what’s the case law on the death penalty?”

Bots need to seek answers from trusted, up-to-date, and “well-stocked” sources (e.g., LexisNexis)

Credits: iStock, DIY, Unsplash
What The Near-Future Looks Like for Profession-grade DA

Getting there…

• We don’t have the “Voice” yet – that will be difficult especially being able to read back

• We’re working from the bottom up – starting with the written word, and typing our professional questions
  • Lexis+ Q&A

• Core data providers are creating partnerships with digital assistant platform providers (e.g., Amazon, MSFT)
  • Anyone notice that Amazon Alexa has a new source: Wolfram Alpha?
What The Future Looks Like - *Digital “Intelligence”*

Ideally…

Star Trek’s Computer or Iron Man’s Jarvis—ask the computer legal or medical question, via a single sentence out loud, and trust the answer is correct.

The true leap will come when voice-intelligence can anticipate what my ultimate end goal is based on my question and context and gives me some additional information *that I may not have asked for* to help me achieve my goal.
Let’s watch Captain Kirk do some research in the 23rd century…AGAIN

**Now…notice the advanced ”intelligence”**

- **Contextual Understanding** – Consider that first sentence he asks…what is inferred by the AI?
- **Platform Complexity** – Note how the computer understands “Kirk-speak” and which person to compare to whom
- **Data Access** – Consider historical data and the ability to try to create a “comparative assessment”
Thank you.

Rick McFarland, CDO, LexisNexis