

By Ty Tasker

The Promise of Law Analysis Technology

Applying artificial intelligence to the practice of law will improve efficiency and accuracy

Compared to other businesses and professions, the technology of automated analysis has lagged in the legal profession. While it is true that legal professionals have embraced more routine computer functions, the legal profession has substantially underutilized the potential of computer applications to accept factual input, apply reasoning, and reach conclusions for broad areas of issues. In contrast, other professions already employ automated analysis software programs to understand business trends, manage finances, plan taxes, and diagnose medical conditions.¹ Now, however, promising developments are on the horizon for the legal profession as well.

There are several reasons why the legal profession has lagged in this area. One is the widespread belief that the law is not a good candidate for the use of analytical computer programs because legal reasoning requires judges and jurors to employ considerable human subjectivity when making decisions. For example, fact-finders in the legal setting frequently must determine whether someone acted like a reasonably prudent person acting under similar circumstances. In contrast, so goes the argument, business, financial, and health analyses are more similar to mathematical or scientific computations.

In addition, the development of automated legal analysis has suffered from a shortage of qualified authors. Not many attorneys understand computer programming or how to communicate concepts to information technology specialists. Similarly, programmers usually lack the schooling and experience in litigation or transactional work that is needed to conceive the most optimal innovations.

Despite these obstacles—and as wildly futuristic as it may seem—computerized legal reasoning already is technologically possible and potentially of tremendous value. While no respected expert would argue that artificial intelligence is close to becoming a substitute for human reasoning, existing programming languages are capable of greatly complementing the work of law professionals. Such innovations would go well beyond producing the customary search-engine-type lists of authorities and summaries that can be generated by keyword searches or the familiar services of Westlaw or Lexis.

Instead of relying heavily upon the legal professional to discern the significance of search results, interpret meanings, and apply facts, future programs will generate custom-tailored legal analyses, in proper grammar, based upon an attorney's input of answers to form questions. Programs will be able to predict litigation results or recommend choices among transactional or advocacy approaches by mathematically weighing the numbers and types of factors and comparing applicable cases and statutes. Moreover, when a computer finds conflicting evidence, it will be able to assume different fact patterns and predict a possible array of results.

One trend supporting this work has been the development of

software-interpreting, programmer-friendly languages that make it easier to bridge the gap between professionals speaking legalese and those using technical jargon. These languages employ visually appealing interfaces that utilize code editors that interpret scripts in a manner resembling familiar English grammar, instead of requiring the writing of foreign code. This makes it easier for the programmer to modify the programming codes, a skill previously known only to a few.

Legal professionals who become adept at using these new tools will reap the benefit of substantially improved efficiency and accuracy in their legal analyses. For example, automated analysis software could remind legal researchers of a forgotten law or case or point them towards recent developments or overlooked issues. Additional efficiency would be gained by advancing the starting point for research from the cold, unapplied broad outline of law that researchers currently find when employing secondary authorities to an already partially analyzed and tailored resource.

To get the ball rolling, advocates of automated analysis software need to put their more grandiose goals—however admirable—on the back burner and pursue a more limited approach at this time. This limited agenda will include:

- The identification by legal researchers of modest goals—including beginning with simpler laws—that require limited levels of reasoning. Complexity can be added gradually as the technology develops.
- The development of custom-tailored statements generated by programs based on code embedded with the human-reasoned writings of legal professionals, as opposed to attempting to create an automated replication of the human mind.
- The development of applications by professionals who understand both legal analysis and programming.

The future is already clear: In the next 5 to 10 years attorneys will be expected to consult artificial intelligence as an integral part of their client representation. This process will become the standard of care in the profession, and those who ignore it will increase their exposure to malpractice claims. ■

¹ See, e.g., FOOD AND DRUG ADMINISTRATION CONSUMER MAGAZINE, available at www.fda.gov/fdac/features/795_compdiag.html.



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