Legal Analytics and Artificial Intelligence for Research & Law Practice:
Tools, Features & Functionality

*Intelligent Search, Machine Learning, Data Mining, Analytics, & Data Visualization*

Duquesne University: AI Thinking About Law, Law Practice & Legal Education
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This demo showcases research and practice tools which utilize artificial intelligence and are currently available on Lexis Advance. Artificial intelligence frees attorneys from crunching data, wasting time sorting through irrelevant content, and looking for connections that are not readily apparent. Analytics involves the discovery and communication of meaningful patterns in data. The result: Greater efficiency and less frustration in delivering a superior work product while securing a competitive advantage.

For 20 years Lexis has been pursuing legal artificial intelligence in the form of data mining, analytics, data visualization, machine learning, and intelligent search technology.

Verdict and Settlement Analyzer: Evaluate Damages

How to perform a damages evaluation

- LexisNexis Verdict & Settlement Analyzer provides an analytical edge by helping you confidently value your case and optimize strategy with visualization tools that harness the data on more than 1.1 million verdict and settlement documents. Graphs, charts and search features help you narrow massive results to assess risk and opportunity.

- Click box next to “Lexis Advance Research” on upper left and select Verdict and Settlement Analyzer

Litigation Profile Suite: Profiles on Judges, Attorneys and Expert Witnesses

- Lexis Advance’s Litigation Profile Suite is a revolutionary platform launched from Lexis Advance which provides one click access and analysis on your judge, attorney or expert witness. It is accessed through the Lexis Advance Suite on the extreme upper left of the screen.

- Click box next to “Lexis Advance Research” on upper left and select Litigation Profile Suite

- LexisNexis Litigation Profile Suite is an Early Case Assessment (ECA) tool that delivers comprehensive quantitative and qualitative information that will reveal facts, behaviors, and biases about expert witnesses, judges, and attorneys that help you refine case strategy, manage client expectations and improve litigation outcomes.

Context: Using Language Analytics to Research Judges and Expert Witnesses

- Context is more than the successor to Litigation Profile Suite as it provides judge and expert witness profiles but something very powerful – case law language analytics

- Context is the first and only tool with powerful legal language analytics, deployed across millions of case law documents to pinpoint the specific language your judge will likely find persuasive and identify each time an expert has been challenged in court and an opinion has been written about it.
Click box next to “Lexis Advance Research” on upper left and select Context

Lexis Answers - Quick Answers to Legal Questions & Quick Start to Legal Research

Modern internet browsers provide “Answer cards” for people, places and things. Lexis Advance does so for legal concepts using machine learning AI technology for a quick start to your research or quick answer to a basic legal question as well as a deeper dive with caselaw search results. It is available for:

- Definitions
- Elements
- Doctrines
- Statutes of limitation
- Standards of review
- Judges

Search Term Maps: Quickly Review Caselaw Search Results

In case research results, use Search Term Maps to preview top search-hit passages throughout the document, including the case summary, headnotes and opinions. Determine if you should view the full text fast. Just select a hit and move to that hit in full text. Visual data displays allow users to identify patterns and relationships they wouldn’t otherwise notice.
• Lexis provides a unique color to each term and indicates on the search term bar where in the case the terms appear.
• **Search Term Location Bar:** The bar above the case excerpt indicates where in the case (headnotes, opinion etc.) particular search terms appear before you click into the case and the excerpt displayed beneath each case is the largest most relevant cluster of search terms.
• To select a different cluster, click on the desired colored bars corresponding to your interest.

**Lex Machina: Legal Analytics**

• **Lex Machina** mines litigation data, revealing insights never before available about judges, lawyers, parties, and the subjects of the cases themselves, culled from millions of pages of litigation information.
• **Lex Machina** is a standalone product, but a free view is integrated into Lexis cases (federal)

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**Legal Issue Trail: Helps find the best case to cite for a point of law or legal issue**

• With Legal Issue Trail, when you find a relevant case of interest and drill down to a particular legal issue, you can click on Legal Issue Trail to find additional cases that have similar passages that you may not have found through a traditional search method. This helps you navigate the universe of cases and identify those most clearly on the point of law most relevant to you.
A. Age Discrimination in Workforce Reduction Cases


The Plaintiffs have conceded that there is no direct evidence of age discrimination. Moreover, there is no question that the Plaintiffs' positions were eliminated as part of the May Stores overall workforce reduction. Thus, to establish their age discrimination claims, the Plaintiffs must satisfy the familiar burden-shifting framework set out in McDonald Douglas Corp. v. Green, 411 U.S. 792, 800-02, 93 S.Ct. 1817, 36 L.Ed.2d 668 (1973), as modified for workforce reduction cases.

According to this analysis, plaintiffs first establish a prima facie case of age discrimination. McDonald Douglas v. Green, 411 U.S. 792, 800-02, 93 S.Ct. 1817, 36 L.Ed.2d 668 (1973).

- A page appears with all cases which cite to this case for that issue and all cases to which this case cites for that issue. We have additional cases we did not know existed but for this tool and a single click. Click Deactivate Passages to get out of Legal Issue Trail

Ravel View on Lexis Advance

- Click the Ravel View graphic on upper right in case law search results

Overview & Research Applications

- Ravel™ View helps you find the most influential cases by showing you how cases connect and interact through:
  - cutting-edge machine learning,
  - data mining
  - visualization technology.
- It analyzes your top case law search results so that you can craft your argument knowing you have the most important cases through their connections to each other.
- Identify the most influential cases from your search results by:
  - Court level
  - Citation frequency
  - Shepard's® treatment
- Result: Better understand case law search results and find the cases to win.
• Ravel View Display Explanation
  o Ravel displays the top 75 case results from your search
  o Each circle represents a case. Size represents the number of cases that cite to it and lines indicate connections—cases cites to and cases cited by
  o The higher the position of a case within a court’s horizontal level, the more relevant it is (based on your search terms)
  o Click on a case to display at top of results list
  o Hover over any citing case with Shepard’s treatment to see the point of law discussed to see if other court’s analysis is relevant to your research.
  o To return to the full view of all available case connections click anywhere in the background.
Shepard’s Graphical

- Shepard’s has been relied upon by attorneys for over 140 years as the standard in the practice.
  - Shepard’s Graphical displays Shepard’s data by treatment and jurisdiction in a color-coded block arrangement which allows you to easily see the most relevant cases in your jurisdiction.
  - and click Search
  - Click the Case’s Shepard’s Symbol or click Shepardize this document
  - Click the Shepard’s Graphical

Research Map

- Click on History at the top
- **90 days:** History will store your research for 90 days
  - Move items into folders to save beyond 90 days
- View all History
- Research Map
  - Shows path of research including terms searched, results, linking into cases and all steps from beginning to end
  - Click History
Research Map