

Since its first legal product debuted in 1973, LexisNexis® has been delivering increasingly customized research solutions to help industry members find the right information fast.

n the nearly half century it has been in business, LexisNexis has logged a number of firsts. In the 1970s, the company created the first online legal research service. In the 1990s, it debuted the industry's first web-based informational service.

Today, it's the first service to provide advanced data visualization and analytics capabilities, according to Jeff Pfeifer, vice president of product management for the North American Research Solutions business of LexisNexis Legal & Professional. He attributes this achievement to extensive research and development, innovation, and technological development.

The company's history dates back to 1967, when the Ohio State Bar Association contracted inkjet printing developer Data Corp to create a "free-text" search and retrieval system, which launched in 1973.

In recent years, the company's legal information business has increasingly focused on developing electronic decision-making tools that analyze underlying content and data sets and providing workflow tools to help lawyers be more efficient and productive.

Pfeifer recently shared his thoughts with *AALL Spectrum* about legal technology instruments we can expect to see in the future, the company's evolution, and the vital role law librarians play in the company's product development process.

How has the online legal service market changed since your initial search engine launched in 1973?

It's evolved in terms of the number of resources offered, some of which are client-driven—meaning law firms' clients. There is a clear expectation for earlier

analysis of information so lawyers can represent or offer advice to clients. For lawyers, there is just an overwhelming amount of information available today. That's created a new calling for us in how we design products and offer analysis—to mine information for key conclusions that would literally not be possible by reading the full text of a document. There's simply too much information to review.

How have your legal products changed since your first product release?

If you think about the context of that time period, the vision to digitize the law was dramatically ahead of its time. There were no competitive solutions on the market. LexisNexis literally invented the field of online legal research.

The first iteration included decisions only from Ohio and New York. We continued to add content—case law, statutes, regulations, and later news and secondary content. We found that legal content users in law firms, legal departments, and law schools had a much broader interest in data sets, so we expanded to include news coverage in 1982—which we now refer to as the Nexis part of the product.

All of the early data was manually keyed in for many, many years. Well into the 1980s, little information was available electronically; that became available much later, both from government institutions and partners we work with, like news providers.

Lexis.com was introduced in 1997, and it was truly a fundamental release for us. We shifted our product delivery focus from a closed, proprietary network to an open, web-based platform. The internet enabled us to get access to content sources that were previously not available.

Prior to the time we added regulatory data to LexisNexis, the retrieval process to get information required that individuals request information directly from state or federal agencies. That was a big focus for us, and over

time, we looked at other sources of rules and regulations—important data like testimony hearing information.

Is your product development process different in any way?

We've been working to replace and modernize our infrastructure over the last five years with a business investment of more than \$1.2 billion that allows us to drive innovation and bring new products to the market more quickly. It also supports some of the improved new features within our core products like Lexis Advance; we recently introduced a feature called Search Term Maps that introduces the idea of data visualization to our users—the concept that key conclusions can be presented visually rather than in text.

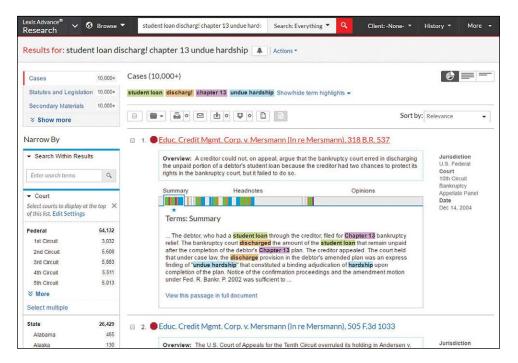
We shifted the technology's architecture so it can support the development of many products on the same technical infrastructure. We support more than 50,000 sources of information; we're adding more than 13 million

documents every day to our data collection, which is more than 2.5 petabytes in size. In total, we have more than 60 billion documents available online. With a volume of information like that, to be able to get to the important information allows a lawyer or information professional to offer that key insight that's absolutely critical.

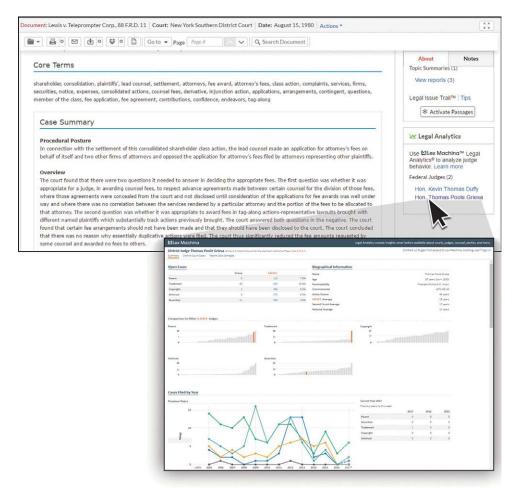
Who is your biggest user group today?

Attorneys, paralegals, law school students, and nearly every information professional—they are what I'd describe as our central user group. They are the ones who know our products best and are often the most frequent users.

LexisNexis was acquired by our parent company in 1994, RELX Group, which, through its legal division, had a strong presence outside the U.S. Joining the two companies together created an opportunity to build the first global legal research solution offering. Many users are looking for



LexisNexis recently introduced a Search Term Maps feature that conveys information visually to complement the accompanying text.



insight into U.S. law. For example, someone might be practicing law in South Korea and may be interested in intellectual property development in the U.S. We've also developed local products and solutions in a number of jurisdictions around the world, including Canada, the UK, New Zealand, and many countries throughout Asia.

Have customers provided any product development input?

We maintain a standing advisory board of librarians that meets two times a year to offer advice on our product strategies and initiatives. We also maintain a user group of professional librarian customers who offer very specific feedback on our development ideas or on more general things they'd like to see in products. Our librarian relations consultants serve as a primary channel of information from the community. We mine feedback from

the group and use that information to make product changes.

We also have a separate standing board of law schools and another group of in-house corporate law librarians.

What inspired your decision to transition *lexis.com* users to Lexis Advance?

We announced that at the end of 2017, we would retire our legacy offering, *lexis.com*, the product we've had the longest in the market. Development on *lexis.com* actually ended about two years ago.

For customers, that means access to new and exciting features that weren't possible on *lexis.com*. Most importantly, we heard from librarian customers that it was time to consolidate our product offerings. For information professionals in particular, supporting one solution is simply more efficient.

Lexis Advance and legal analytics product Lex Machina, which LexisNexis acquired late last year, were integrated due to law librarians' suggestions.

To design a smooth transition, we're working with our library relations consultants, customer service, and sales teams to support end users as we move through the process.

Does providing resources for the legal community present any unique challenges, compared to other industries?

We're at an interesting inflection point, in terms of both technological development and user behavior. The historical interaction with a product like ours has largely been search and retrieval. One enters a search term and gets documents that match the query.

As data volumes continued to grow, traditional review by document became quite difficult. Fast-forward from five years ago, and you're now seeing researchers who could be defined as data-driven, which means they are using data visualization and analytics tools to draw new insights in research.

What's also emerging is what some refer to as artificial intelligence (AI). Like data analysis and visualization, AI is able to mine and extract new insights and information based on the way customers interact with a product. We'll see different research in the future that can draw key conclusions much faster for users to be able to move through volumes of data that are significantly larger than what's available today.

What is the biggest challenge facing the legal community?

The biggest challenge facing researchers is not unlike a challenge that existed 20 to 30 years ago—have I adequately researched a question and did I miss anything?

Aided by new technological devices, features, and enhancements—technology that wasn't available even five years ago—the research process is improving in a way that can make information professionals feel more confident that the research they gather is complete.

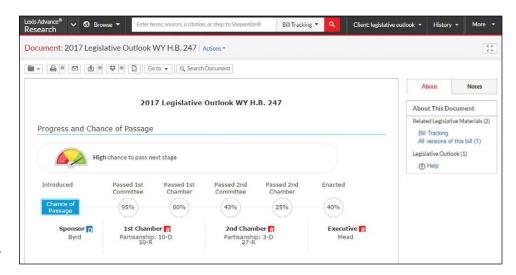
What do clients typically say your biggest selling point is?

We remain the largest legal database that's inclusive of all legal information, news information, and what I'll call legal commentary. That collection of data continues to grow.

Increasingly, our value proposition is equally determined by users' ability to extract key conclusions and gain insight from massive amounts of data that would have previously been difficult to assess via standard text review, using such features as data analytics and data visualization that are now layered on top of content. Those features represent what customers tell us is the reason they purchase our products.

Have your clients emphasized cost efficiency in recent years?

Customers tell us they have to be more efficient with the resources they have in their firm or organization, and the services they select have to help users accomplish tasks in the most efficient manner. From product design, all the way to how we package and sell solutions, we've made adjustments since the market downturn.



Lexis Advance's Legislative Outlook feature uses data analytics and data visualization to offer insight into what might happen with a piece of legislation.

We looked closely at how to speed up the process of developing legal insight, for example, in our legislative solution. We introduced a feature within Lexis Advance called Legislative Outlook, a combination of data analytics and data visualization. The objective was twofold: Get users insight faster so they're able to move on more quickly, and to draw insights to what

might happen with a piece of legislation, so attorneys can make smarter recommendations to clients about risk or business policy.

What do you think the future of legal online services will look like?

Technology will continue to drive enhancements to product strategy in the area of mobile access. That's important for us; we've invested a significant amount in our ability to make our services available in a portable way because customers are increasingly mobile, and access to our solutions via advanced interfaces is a critical priority.

We are also exploring personalized experience with our products, so products are smarter about who the user is. what users' tasks are, and how we can customize the product experience to better understand their research intent. We're actively developing product solutions in the field of machine learning. or AI. The idea that humans can interact in a more verbal way with computers is very compelling; it promises less training and offers faster answers if users can participate in interactive dialog with computer systems. The field of artificial intelligence in the law is in its early stages; however, I expect exciting things in the near future for users of our solutions. ■

LEXISNEXIS BASICS

First product released in: 1973

Total sources that supply legal, news, and business documents and records: 50.000

Countries served:

175

Employees worldwide: 10.000

Year the company reached 1 million users: 1989

Parent company: RELX Group

Future capabilities LexisNexis offerings will allow via advanced interfaces:

Voice-based question-andanswer search queries from a PC or mobile device with specific LexisAnswers; the ability to filter search results based on roles or practice areas; and search queries that are recommended based on users' and colleagues' past search behaviors.