

## **Patent Quality Tools Overview**

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[Link](#) to Deep Dives

Name: Katherine Rubschlager

Section: Prior-Art Identification

Problem Solved: Overall, the Prior-Art identification tools yield better results in less time by using AI, machine learning, and algorithms.

There are a number of companies and products offering this tool, each of them emphasize a different aspect of their product and why it yields the “best” results. For example, Ambercite AI emphasizes how it replaces the conventional search process by relying on keyword and semantic association and then ranks results based on similarity as opposed to traditional search systems. XPLAT extracts its intelligence from other technologies such as Watson and Natural Language Processing, and provides Automated Technology clustering, coupled with excellent visualization of Patent Data to help gain quick competitive insights.

AI Patents on the other hand, utilizes a learning algorithm that learns from thousands of patent examination decisions in the US and Europe and determines whether two distinct inventions describe the same scientific idea, even though their exact wording differs. This reduces the searches reliance on keywords or terms related to such technology, and instead focuses on the actual outcome of the technology as two technologies can be described in a completely different way but achieve the same thing.

Although a variety of entities are using these types of tools, patent prosecutors, startups and in-house counsel seem to be relying on these tools most. However, the USPTO and WIPO are beginning to also integrate this type of technology. For example, the USPTO is using AI patents to provide pre-search results to examiners. WIPO on the other hand is using AI technology to offer a unique patent translation tool relying on other patent documents to translate material rather than more disparate arrays of text. The tool includes a “domain-aware-technique” that translates according to the specificity of the invention.

In conclusion, these tools provide a major improvement over current methods of prior art searching. AI Prior Art tools, save both time and money, while also producing more accurate results. Utilizing these tools thereby increases patent quality by enhancing both drafting and examination quality.

Name: Elaine Chou

Section: Patent Drafting / Prosecution

Problem Solved: Patent Drafting/Prosecution tools assist patent attorneys in dramatically save time and reduce costs to review a patent application, and these products eliminate human error with validated consistency, accuracy, quality.

Many products have come to the forefront to patent drafting using artificial intelligence. Many companies overlap in their services and integrate particular products into their patent drafting software, known as product enhancements. Five factors generally determine the difference between products: the number of comprehensive features offered, feature functionality, type of algorithmic engines used and data-mined, interface-design, and usability. For instance, TurboPatent uses at least two robust artificial intelligence and predictive analytics products: RoboReview, a cloud-based SaaS tool that analyzes draft patent applications, and RapidResponse, a product that assists lawyers in writing responses to office actions as an added feature to the SmartShell application that automates the creation of patent shells that outline the issues requiring response after receiving an office action from a patent examiner. ClaimMaster is an automated verification tool that features rich patent tools that focuses on consistency, accuracy, and error-free drafting. The product offers a reference checking feature, which analyzes a patent application specification and generates a chart, of reference numbers and their associated terms, that ensures consistent use of reference numbers and terms, reducing the need to proofread a patent application. Also, as part of its drafting and prosecution efforts, Innography incorporates IdeaScout, a management solution which engages inventors, promotes collaboration, provides early capture and cataloging of strategic ideas, and reduces duplicate and redundant efforts in the idea review and patent filing process. Its other patent-drafting related features include PatentIQ, PortfolioIQ, Patent-Scout, and Patent Guard.

AI's algorithms cleanse and normalize data, mine patents for vital information, and make determinations on patent vitality. AI reads the application, makes comments and suggestions on how to improve the document, (in TurboPatent's case, a format similar to Microsoft Word), proofreading and spell-checking capabilities, bulk patent download, ability to check for antecedent support and reference number consistency. Acquired by CPA Global, Innography advertises its AI as uniquely leveraging modern technologies with its online Intellectual Property Business Intelligence (IPBI) applications and patent tools, big-data analytics, crowding source, and use cloud technologies.

The barriers to entry in developing AI patent drafting / prosecution tools are low. Patent drafting/prosecution tools include anyone who can download patent documents from patent offices and put them online. However, most of these companies market their patent analysis tools as software that works across-platforms in a secure, web-based patent review environment (or runs through a subsidiary client, like ClaimMaster, which runs on a Mac through Parallels). Companies like TurboPatent also advertise that the information submitted is 100% secure, where information is encrypted in transit, processed, and data is delivered back to the browser where the results are displayed, where results are not stored. Payment models for patent

drafting software range from a subscription model on an unlimited or per-use basis. Patent drafting / prosecution tools are particularly useful to practitioners drafting new patent applications and need to make multiple revisions. Patent owners, law firms and corporations of all sizes would also find products' diverse toolsets useful.

In conclusion, software that helps patent lawyers draft application are more likely to pass muster with the USPTO, as well as respond to official letters from examiners. It is generally regarded that practitioners who incorporate these AI tools into their workflow now can efficiently keep up with patent demand, quality concerns, and competitive strategy.

Name: Andrew Parkhurst

Deep Dives for IP Logic Systems, Juristat, and Clear Access IP are available [here](#)

Title: Patent Quality Evaluation

Problem these Companies are Seeking to Solve: Providing accurate and quantifiable evaluations of patents to properly value them for purposes of licensing, assignment, tax purposes, and establish a likelihood that the patent may be the subject of litigation.

The companies profiled in this summary are: [IP Logic Systems](#), [Clear Access IP](#), [Juristat](#), [Lexis Nexis Patent Advisor](#), [Lex Machina](#).

Although all are in the patent quality business broadly, each of these is slightly different in their offering. IP Logic Systems uses proprietary sources of data to train a machine learning model capable of analyzing patent claims and returning a risk score. The computer-generated risk score represents the likelihood a patent claim is invalid based on assessing the patent under a specific rule of law, for example under a § 101 subject matter eligibility analysis. Patent Risk Scores take into consideration technology classification, group art unit, examiner, case law, and more sources according to their website. This technology is very specific and performs a specific task. By linking to patent databases, the machine learning algorithms can compare patented inventions against the claims of the filed patent. IP Logic Systems is a start-up company still shopping for companies and law firms who want to use their technology on a testing-phase basis.

In contrast, the other four companies are already in wide use among companies and law firms seeking to track and evaluate their patent portfolios. Clear Access IP is a holistic comprehensive patent portfolio management system, enabling end-to-end management of the patent's lifecycle from filing to licensing. Building a data set associated with the patent that tracks the patent's prosecution history, licenses, and other data points allows the user to get a clear picture of the value of the patents and the portfolio as a whole.

Similar to Clear Access IP is Lexis Nexis Patent Advisor. Patent Advisor is primarily a patent drafting tool, however it also allows continued monitoring of granted patents across its many products. Patent Advisor brings predictive analytics to its program suite that can take in numerous inputs in order to predict successful, or unsuccessful, outcomes on patent applications. The predictions generated can be a valuable source to assessing the patents validity when subjected to challenges and thereby properly valuing the patent.

While primarily a patent drafting and prosecution tool, Juristat is also useful to assess patent quality based on the drafting and examiner's reports generated through the company's software. The drafting recommendations and examiner's reports provide insights into what is most likely to invalidate or narrow a given patent, even after the patent is granted. Identifying areas of weakness can be an important factor in assessing the quality and value of the patent.

Lex Machina is primarily a litigation tool that can be used by litigation attorneys to organize and compile results from a particular court and a particular judge and then establish a likelihood a

judge will rule a certain way for a given issue. One of these courts that Lex Machina aggregates data for is the PTAB, which enables attorneys to track the rulings of individual PTAB judges for various issues contested.

In conclusion, the growth in the field of tech and patenting appears to be in the drafting assistance, and less on the side post-grant quality assessment side. But there are some tools that seek to score a patent's strength when put under scrutiny and some that can be used as described above to monitor patent quality and make predictions about whether a patent will survive if it subjected to litigation.