



**Why non-patent
literature can make or
break your business**

Best Practices for IP Professionals Series

Innovation activity has been booming around the globe in recent years

Patent filing statistics and research paper publications are on a seemingly unstoppable upward trend worldwide.

All of this innovative activity also means that there is an unprecedented abundance of information available. This comes in the form of both patent documentation and non-patent literature, such as published disclosures, academic and scientific papers, technical standards and other prior art documents. All of this needs to be navigated by inventors and businesses in order to mitigate IP risk and maximize the potential market for their innovations. Careful analysis and understanding of this wealth of information can also open up a whole host of strategic opportunities, such as co-development and additional revenue streams through licensing.



IP Professionals today need more advanced tools

Software and information technology have been identified as big challenges for IP professionals.

In-house IP teams are increasingly seeking out more advanced technology solutions that make sense of vast collections of data, provide seamless collaboration, make workflows more efficient, and lead to more timely and better-informed decision-making.

While patent information tools have existed for some time, the evolution of the innovation ecosystem means that existing tools have not all kept up with the pace of change.

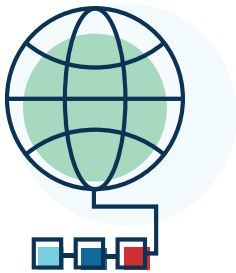
Enter InnovationQ Plus, a patent discovery and analytics tool from IP.com. It provides advanced search, analysis and visualization of patent and non-patent material in one platform, turning big data into strategic value.



InnovationQ Plus

These solutions need to transform the search of incredibly complex and multi-layered information into a simple and intuitive process.

IP leaders expect the following features in a state-of-the-art innovation discovery and analytics platform:



The ability to perform **complex searches** of worldwide data in multiple languages, with accurate translation capabilities, and the capacity for natural language input and output.



Ease-of-use and ease-of-access through a user-friendly dashboard and other user-centric design features.



Potential to **collaborate** across a team and with other internal stakeholders, enabling users to share information and projects securely.



Analysis, visualizations, and reports that derive insights from both patent and technical content to help make critical decisions.

Best Practices for IP Professionals Series

Today's busy R&D, IP and business professionals require these types of capabilities in their software solutions.

Tools that are intuitive to use will save professionals time and money learning to use them—while also making them useful and productive tools for people who aren't necessarily experienced in conducting patent searches and other relevant analyses. While all of the latest innovation and IP analytics platforms seek to cover these bases, InnovationQ Plus, powered by IEEE and IP.com, possesses several unique features that set it apart.

Importance of accessing an unparalleled library of prior art, including critical non-patent literature.

InnovationQ Plus offers first-hand access to the most critical, full-text non-patent literature, unmatched by other solutions, with colossal datasets from both IEEE—the world's largest technical professional association and a leading developer of industry standards—and IP.com, a leader in intuitive and powerful intellectual property tools.

In addition, InnovationQ Plus can search patent documents from the world's major patent-issuing authorities, including in the United States, Europe, China, Japan, South Korea, Germany, Australia, the World IP Organization, and more.



Unparalleled Library of Prior Art, including Critical and Non-Patent Literature



Use-Centric Interface



Business-ready Analysis and Visualizations

Non-patent literature is critical for IP search strategies and your company's bottom line

Non-patent literature plays a huge role in patent and prior art research, and it comes in an endless array of forms.

A large part of its value lies in the very fact that it can be extremely difficult to sift through to find what might have relevance to your innovation project.

Identifying prior art is important for a number of reasons.

- The discovery of relevant prior art that predates an invention indicates that the invention is not novel, which means that it cannot be patented (or provides grounds for invalidation if a patent has already been granted).
- Prior art helps to understand whether applying for a patent is a worthwhile investment and to highlight potential pressure points that third parties may attempt to exploit in any future patent disputes.
- Prior art searches on competitors' products and technology can provide you with valuable intelligence, and help to identify opportunities for monetizing your own intellectual property through licensing or assertion.
- With the massive cost of litigation, not to mention R&D and patent filing, the ability to search non-patent literature during the earlier stages of innovation can be the difference between a profitable invention versus a fiscal loss.



The IP solution with the world's premier collection of non-patent literature

IEEE and IP.com are uniquely positioned to offer users access to an unparalleled collection of non-patent literature at lower cost than other providers.

Typically, providers of IP and innovation analytics services are not themselves creators and custodians of patent and non-patent literature. Rather, they design solutions that enable others to access this data at its source.

Therefore, much of the data that they can make available to their users is either only bibliographic data fed from publishers which does not enable users to perform comprehensive full-text searches of documents. In other words, it can theoretically be accessed freely through other means and, setting aside the curated service that may be offered by the provider, may not add much in terms of value for users. Anything else is typically licensed from third parties, limiting providers' freedom to offer full access to users or to leverage the content in ways that could improve the user's experience. Moreover, bibliographic data alone may fail to provide the kind of deep-dive insight you need to ensure your patent application has the best chance of being granted.

Since most providers lack proprietary data, they either cannot offer a comprehensive solution to their users, or they must add expense—in the form of premium pricing or complicated cost structures—for end users in order to provide that access. As a result, users are often frustrated to find that they are 'locked out' from accessing certain information or using certain features.

IEEE impact on innovation

IEEE is the world's largest association of technical professionals. It has over 440,000 members worldwide, including not only electrical and electronics engineers, but also thousands of experts from fields such as telecommunications, biotechnology, computer science, energy, physics, and software development.

With its stated core purpose to “foster technological innovation and excellence for the benefit of humanity,” the IEEE is one of the foremost publishers of scientific journals that are the top-cited publications in their fields according to Clarivate Analytics (formerly Thomson).¹ In fact, IEEE publishes nearly a third of the world's technical literature in the disciplines of electrical engineering, electronics, and computer science.

IEEE also sponsors more than 1,500 conferences focused on specific areas of technological development every year. The collective proceedings of these events are recognized by industry and academia worldwide as the most vital collection of published papers with regards to fields such as electrical engineering, computer science, and others. These conferences often mark the first time that a new invention is discussed in public, underlining just how pioneering they are.

Even more telling, a 2017 report by 1790 Analytics LLC² analyzing how IEEE published information influences patents in today's top technologies reveals that IEEE journals and conference proceedings received over 430,000 patent citations—more than three times the number of citations of any other publisher. According to the study, patents issued by the U.S. Patent Office are citing scientific literature, primarily IEEE information, more than ever before.

¹ Refer to 2016 JCR and www.ieee.org/citations for additional information.

² http://www.ieee.org/publications_standards/publications/subscriptions/patentcitation/index.html

Research

These results suggest that not only do IEEE publications frequently provide the science base for new inventions but that inventions that build upon IEEE publications are more likely to be valuable in the future than inventions that do not.

288%

Increase in non-patent references

The average U.S. patent had only 2.76 non-patent references in 1997. That number jumped to 10.71 by 2016— a 288% increase.

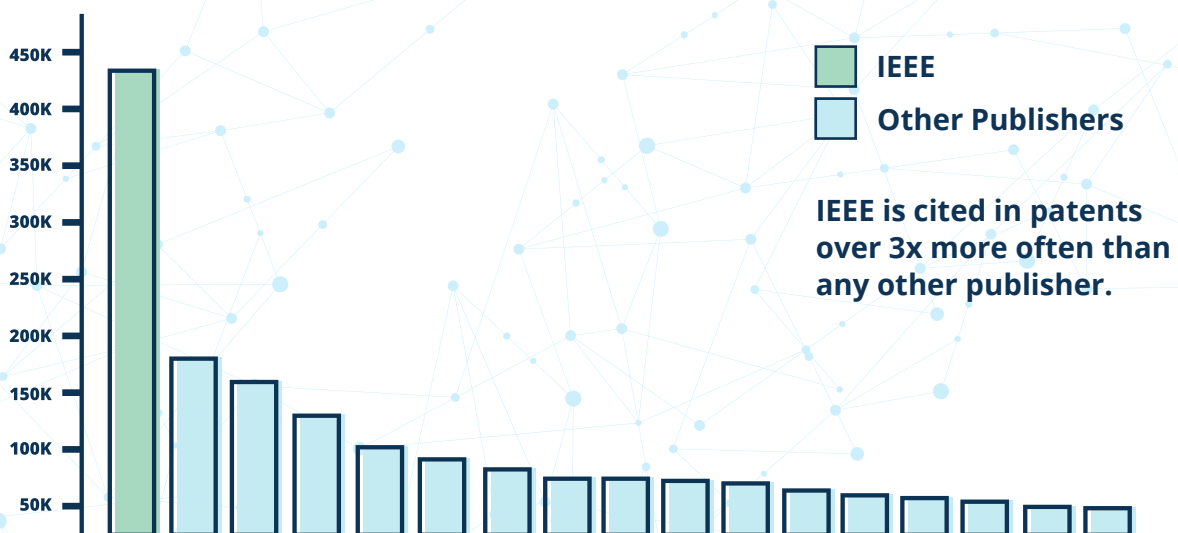
838%

Increase in patent references to IEEE

By comparison, patent referencing to IEEE has increased 838% since 1997, suggesting that IEEE published materials provide much of the science base in patents.



Patents that reference IEEE papers are cited more often than patents that do not, and it has been shown that highly-cited patents tend to be more high-quality, high-impact, and valuable.



Research

Many working in industry and the research sector will also recognize IEEE as one of the world's foremost standards development organizations.

It has helped to create nearly 2,000 industry technical standards over the years covering areas as diverse as electronics, telecommunications, healthcare, and nanotechnology, among others. While standards are critical to the wider adoption and interoperability of inventions, they can also play a significant role in filing for patent protection. A wealth of information regarding inventions is revealed during the standard-setting process, clearly making it a vital source of prior art. According to a May 2016 study³ from researchers Rudi Bekkers, Arianna Martinelli and Federico Tamagni, the European Patent Office saw its patent grant rates reduce by close to 10% after it began to consider standards-related information as prior art beginning in the year 2000. This decrease in grant rate suggests that the process of issuing patents “has become more careful and selective” as a result of the policy change—pointing to the importance of standards data for prospective patent applicants.

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With InnovationQ Plus, users can search and analyze nearly 4 million full-text articles. This cache includes documents from IEEE Journals and Magazines, IEEE Conferences, and IEEE Standards. What's more is that approximately 20,000 new IEEE documents are added every month, further expanding the corpus of non-patent literature available to users.

³ 'The causal effect of including standards-related documentation into patent prior art: evidence from a recent EPO policy change', Bekkers, Martinelli & Tamagni

More unique sources for non-patent literature

The ability to search IEEE content means that InnovationQ Plus users can already tap into one of the largest collections of innovation-relevant information.

But thanks to IP.com's extensive Prior Art Database, the largest and oldest online source of defensive publishing disclosures, they can go even further.

The Prior Art Database comprises contributions from corporate and institutional disclosures from some of the leading, most innovative corporations in the world. This last dataset comprises a unique and rare source of non-patent literature originally published by third parties and were provided to IP.com to further their own defensive publication strategies. These backfiles come from a multitude of sources with high innovation pedigree, including IBM, Motorola, the National Institute of Standards and Technology, Siemens, the Software Patent Institute, Sony, and Xerox.

High-quality sources of non-patent literature that can be accessed by InnovationQ Plus users include:



The IP.com Journal – new invention disclosures not published anywhere else, which cannot be revised or removed once they appear in the journal.



IBM Technical Disclosure Bulletin – published by IBM between 1958 to 1998, consisting mostly of technical documentation relating to computer engineering.



IBM Redbooks Publications – detailed information regarding IBM products published on an almost daily basis by the company's International Technical Support Organization.



More unique sources for non-patent literature



Internet Society 'Request for Comments' section– documents largely covering computer networking topics including procedures, protocols, and programs.



PubMed Central – a full-text archive of biomedical and life sciences journal literature developed and managed by the US National Library of Medicine's National Center for Biotechnology Information.



Software Patent Institute – includes a wide variety of documentation, including journal articles, academic theses, manuals and conference proceedings from 1995 to 2007.

Various other collections from corporations and industry bodies.



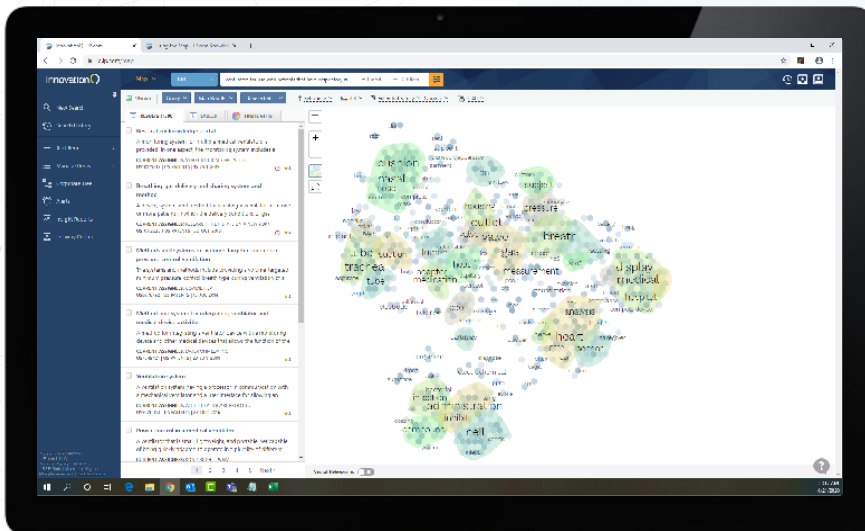
More unique sources of non-patent literature

All in all, it's clear to see the huge scope of non-patent literature that can be accessed via InnovationQ Plus.

Couple this with the platform's coverage across more than 100 million issued patents and patent applications worldwide—including litigation data, enforceability status, expiration dates, maintenance fee payment data for selected jurisdictions, and information from S&P Global Market Intelligence with Corporate Tree —and R&D, legal and commercial professionals have one of the most formidable innovation discovery and analysis tools at their disposal.

Having the ability to search and analyze this vast collection of data means that they can make better business decisions, mitigate IP-related risks relating to prior art and infringement, and add value for their organizations. With InnovationQ Plus, they are less likely to miss information that could be critical to their business.

Access to all of this material is just the first one part of the equation. Paired with intelligent searching, ease of use, and built-in analytical tools, InnovationQ Plus provides IP professionals a complete solution.



Guide to evaluating your search options

Intelligent Search Capability

InnovationQ Plus is powered by proprietary, patent-protected semantic search technology that enables the use of natural language to discover and visualize relevant content buried deep within complex patent and other technical documents. This not only provides more accurate results than a typical keyword search but also allows users to uncover potentially critical information that would not necessarily be found using only keyword or Boolean systems.



User-Centric Interface

The intuitive user interface for InnovationQ Plus has been designed with a broad range of potential users in mind, reflective of the growing importance of IP strategy and related competitive intelligence outside of legal departments. The user-friendly dashboard, ability to visualize technical data in multiple ways, and options to simply and securely work on collaborative projects are also directed towards streamlining the patent and non-patent literature search workflow.



Business-ready Analysis and Visualizations

InnovationQ Plus will identify highly relevant data to help you understand the competitive landscape, view potential trouble spots for litigation or invalidation, or find potential partners or licensing opportunities. Using unique visualizations, discover relevant industry players that could lead you to opportunities or threats you may not have considered.



Conclusion

The benefits are clear. Better patent searches allow organizations to make smarter, more cost-effective decisions about their entire innovation process.

InnovationQ Plus has the power to sift through millions of full-text documents, the speed to deliver comprehensive results and insights, and the innovations to revolutionize your patent research workflow.

Discover the power of InnovationQ Plus today by requesting a demo.

ip.com/solutions/innovationq-plus/