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The strategy behind patent citations

For executive management to have a clear understanding of its competitor's intentions in protecting an invention, it is important to look at the patent's citations, writes Bob Stembridge of the IP Solutions business of Thomson Reuters

Strategy plays an important role in the patenting process.

There are a number of reasons why an organisation or individual may decide to pursue patent protection – to lock in a corner of a market, as a picket fence action against competitors, to further insulate a germane right, for the freedom to operate, or to exclude – the reasons can vary as widely as the technologies, designs, or processes they cover.

With the explosive growth in patenting over the last decade plus, it is clear that many take the right to protect their inventions seriously. Data shows that 2010 patent filings increased from 2009 figures by over 25% at the Chinese Patent Office, 11% at the European Patent Office, 7.8% at the United States Patent & Trademark Office, and 4.8% at the World Intellectual Property Office.

Yet, for all of the ideas that make it to the granted-patent stage, how is one to tell how many are truly influential? How many have lasting, far-reaching impact and significance?

Citation analysis provides a unique view into the influence a patent has. It is one of the criteria on which several patent valuation theories are based, in addition to being used in mergers and acquisitions, due diligence work and portfolio audits. The premise is that inventions that are highly cited are more meaningful and significant than those that aren't. Logically, this makes sense – although, it is not to say that only highly cited patents are influential. Other factors can and do impact the value and influence of a patent. For this article, we are focused on patent citations.

In looking at data over the last few decades, there are some highly cited patent examples that are worth noting.

One of the most frequently cited patents is the one covering the process for amplifying, detecting or cloning nucleic acid

sequences – useful in disease diagnosis and other areas. With 4,058 citations over the last 24 years, this invention is none other than the seminal patent describing the polymerase chain reaction developed in 1983 by Mr Kary Banks Mullis. The technique is used to amplify a small amount of DNA in order to generate millions of copies. It is widely used, and perhaps most well known, in police forensic work to help identify DNA from small fragments of hair or drops of fluid found at a crime scene. As confirmation of the importance of this invention, Mr Mullis was jointly awarded the 1993 Nobel Prize in chemistry for this work.

Another highly cited patent, with 1,515 citations since publication in the year 2000, is International Business Machine's invention for a secure electronic content distribution system for digitally providing data, such as music and movies. Unlike some highly cited patents whose citations comprise mostly self-cites, this IBM patent is referenced by a wide range of assignees, indicative of the influence the technology has had on the industry and world.

These are two unique, and extreme, examples of how a patent's citation count can be used to determine its overall influence. Despite the somewhat subjective nature of the patent examination process, and the fact that the examiner (at least in the United States) is the one who ultimately determines which references supplied by the applicant are cited, patent citations provide a valuable glimpse into the strategy behind patenting.

On a day-to-day basis, however, it is more likely that a patent will be cited many fewer times than the two examples given. This is when it is essential to closely review and understand the reasons for the citations, in order to get a clearer picture of the invention's influence. As in a game of chess, the researcher tries to understand the strategy employed by his/her opponent.

Are the highly cited patents a case of a prolific inventor over inflating the perceived worth of his/her invention? Or is a competing company indicating that this is a critical technology for its business? Do highly cited patents pose a greater risk of

infringement as compared to those that are cited less frequently?

Citing patents also provide insight into different classes and terminology that may be employed to cloak new, seminal inventions. As citations are not restricted to specific class codes, they can reveal information that wouldn't otherwise be found.

This is the level of detail – and analysis – that patent research professionals deal with on a daily basis. The C-suite wouldn't be involved in this type of work, but should be asking its IP counsel or IP legal team the proper questions to drive this behaviour.

Many organisations leverage external providers who support their in-house team with experts specialising in IP research and analysis. The IP consulting team at Thomson Reuters is one such group. With the recent incorporation of the acquired Pangea3 business, the expanded IP Services team has deep and broad subject matter expertise across industries in patent research and analysis, offering search services, technology landscaping, and competitive portfolio assessments.

Companies have found an economy of scale in working with such specialised service providers. Upon receiving the information gleaned from the research and analysis project, management can then bring the results of this work to the C-suite and/or outside counsel for final decision making.

The strategic roots of a patent can be as unique as the invention itself. Executive management can get a much clearer understanding of other companies' intentions in protecting an invention by looking at a patent's citations. Doing so will provide an insightful view of the strategy being employed and could potentially influence its next move. It is worth the effort in doing this work, and in ensuring you have experts skilled in citation analysis on the job.

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