Patent filing and searching: Is deflation in quality the inevitable consequence of hyperinflation in quantity?☆

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Abstract

Roughly one million patent applications are filed each year world-wide. Many describe a small improvement upon the state of the art. The increasing volume of information makes determining the true state of the art almost impossible. Thus many “doubtful” applications are being filed and granted, increasing workload and reducing efficiency. It is a vicious cycle of inflation in numbers leading to deflation in quality.

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1. Introduction

The views expressed here are those of information professionals engaged in searching for patent information in industry.

Last year Mr. Edfjäll, Vice President DG4 EPO in his presentation at the EPIDOS Annual Conference in Prague 2004 stated:

“The mission of the EPO—the patent granting authority for Europe—is to support innovation, competitiveness and economic growth for the benefit of the citizens of Europe” [1].

Our mission in industry is very similar. We want innovation, competition and economic growth. Industry requires innovation, leading to new products and services that everyone wants to buy thereby achieving economic growth. To secure our competitive advantage we need to protect our innovations with strong patent rights. Patents may be traded and licensing patented technology big business.

Patents may also be used for technology and competitor intelligence; a company’s patent portfolio is sometimes used as a yardstick by stock market investors and by potential partners or predators.

It is now recognized that IP has enormous strategic and economic value in our society today. Intellectual Property holds many promises, which is why it has become so important and is considered just as important if not more important than other assets such as land, property or production plants and facilities. As a result, patents are being ever-more zealously acquired, vigorously asserted and aggressively enforced [2]. The race to have the strongest and the largest IP portfolio is on. To have just the right patent or a collection of patents can make a huge difference.

Everyone along the chain of innovation from research scientists to marketing managers are in someway affected by existing or potentially granted patents. Consequently, throughout the whole business process—from an idea to a successful product on the market—patent information is a crucial element for success. This places a heavy burden of responsibility on patent information specialists, patent attorneys, database producers and patent offices for the thoroughness, timeliness and the accuracy of their work.
As a patent information professional, I personally believe that the biggest issue that we will all have to deal with is going to be how to cope with the flood of patent information in which we are already drowning. The enormous increase in the number of patent applications is creating huge challenges for the whole patent system and all of us as patent information users.

Nevertheless, I wish to praise the patent offices and the patent information vendors for the excellent progress made so far, for example in the availability of online filing, esp@cenet®, legal status and file inspection on the internet, and the availability of full-text databases, back-files and patent information analysis tools. We have come a long way and more has been achieved than we thought would be possible just ten years ago.

However, it would be short-sighted to rest on our laurels and glow in the glory of apparently limitless access to “cheap” or so-called “free” patent information. There is still much to be done.

In his presentation Mr. Edfjäll also stated that:

“patents are not easily comprehended, but patent mapping is”

Patents are complex legal documents intended to grant the applicant a monopoly for a limited period of time and to prevent the competitors from using the applicant’s idea disclosed in the patent. It is indeed often very difficult to understand the text of patents. However, I am not convinced that “patent mapping” alone would make understanding patents easier. Patents may not be easy to comprehend, but it is sometimes even more difficult to find the most relevant prior art. The explosion in the number of patent applications published and the sources from which they can be retrieved means that the time and skills required to carry out a comprehensive search and to assess the relevance of documents found, have increased tremendously. As Mr. Pilch, Principal Director DG 4.5 EPO mentioned in his presentation at the IPI conference in Benalmádena in 2005:

“the number of users is growing, but the average level of expertise is falling” [3].

According to the most recent statistics available (Trilateral Statistical Report 2003 [4]), each year around one million patent applications are filed world-wide. These numbers do not mean that there are as many new innovations. But the patent offices will have to examine these applications to assess their novelty and inventiveness, before the patents can be granted or rejected. As patent information users, we expect the patent database producers to index and abstract the published and granted applications and make them available for subsequent retrieval. In practice, however, many of these applications will not be indexed and coded as accurately or completely as they should be. They serve to inflate the pool of data available, making it almost impossible for the patent information searcher to find the proverbial “needle in a haystack” within a reasonable time and with reasonable effort. Errors and omissions mean that many of the relevant documents will never be found, not to mention the difficulties associated with the language barrier.

The result is that applicants and the patent offices working under time constraints, cannot perform fully comprehensive searches to reveal the true state of the art. This leads to more and more “doubtful” applications being filed and granted. It is a vicious cycle of inflation in the numbers leading to deflation in the quality of patents. In the long term this cannot be in the public interest, because only those applicants who have sufficient manpower and financial resources will be able to ensure that their patents are strong and to challenge the weak patents of others.

1.1. What are the costs to the public?

• Poor quality granted patents can cause considerable costs for litigations, opposition, nullity action or payment of large licensing fees.
• In the absence of litigation, the holders of dubious patents may be unjustly enriched, and the entry of competitive products and services that would benefit the consumer maybe deterred or at least delayed. Large numbers of inappropriately granted patents may negatively influence entrepreneurs. They may choose to make payments under licensing arrangements, or perhaps decide not to market any products or services at all, rather than to contest a dubious patent.
• Low patent quality can also negatively affect proprietors. A patent owner may make far reaching and expensive investments, such as to build production facilities or sell a certain product, based upon his/her expectation of exclusive rights to a particular invention. If the corresponding patent is declared invalid, the patentee will be stripped of the exclusive rights without compensation.

The net results would be reduced rates of innovation, decreased patent-based economics, and higher prices for goods and services to the detriment of all.

2. How can we remedy this situation?

2.1. Applicants

Let’s start by filing better patent applications—“quality in, quality out”. For me as a patent information specialist quality patents define the extent that others may approach the protected invention without infringing. This can be achieved if the innovation is well searched before it is filed and when the application is well searched before it is granted.

In large organizations, with established patent information departments employing dedicated information specialists, it is standard procedure when setting up research or development projects, to obtain information on the state
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