

Intellectual Property

Magazine



Fear, greed and smart data: the evolution of IP

FusionExperience's **Joan Mill** explores the '3Vs' that define big data: high volume, high velocity, and/or high variety information assets that require new forms of processing

The phrase 'big data' has been tossed around every industry imaginable since its popularity soared approximately two years ago. I say 'tossed' as it has arguably been used as a band-aid to address a much bigger concern faced by company execs: 'If you asked me right now, I couldn't easily tell you how my company is doing.'

The above statement may be viewed as a broad generalisation, however, the reason for the uptake in big data divisions, data analysts and data scientists can be viewed through the lens of the 'greed v fear' dichotomy. Nowhere is this as prominent as it is in the IP world. This dichotomy refers to an old Wall Street adage that I believe is attributed to US business magnate and investor Warren Buffett, which states, "To be successful in the markets you need to learn to be fearful when others are greedy and greedy only when others are fearful."

Most companies are looking for a large share of IP portfolio ownership to control the vertical(s) they operate in and therefore seek to accumulate as much IP as possible to beat out their competition. The 'greed' end of the spectrum. At the other end, you have companies who tend to accrue IP for fear that if they don't, they will be left unprotected, leaving their ideas open to infringement or worse still, not even making it to successful filing. This of course leaves them exposed. Let's explore this dichotomy within the framework of Gartner's 3Vs dimensional view of data.¹ This model defines big data as, high volume, high velocity,

and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimisation. For the remainder of this piece, and in order to better illustrate my views, I am going to explore these 'Vs' out of their original order

Velocity

In relation to IP, velocity refers to the rapid generation of data. This in itself is actually a good thing for industries and the progression of human kind, however, the main issue here relates to the concept of 'novelty'. If we look at patents for instance, an absolute condition is that no prior art exists. In theory, this is easy enough to monitor and therefore manage. However, in practice and with the advent of today's highly connected world (particularly in all aspects of digital information), it is near to impossible to manage the uncontrollable generation and growth in ideas. If we took the strict letter of the law, anything in the public ether can be considered as prior art. Due to the sheer power and 'omni-tentacled' reach of big data, it is critical for companies to find ways to keep their fingers on the ever-throbbing pulse to decipher what ideas take precedence. This calls for technology: fact. Given how the cloud is used to power hourly transactions and communications, IP divisions of said companies need to ensure they have a competitive

advantage in order to carry out accurate prior art searches, so as not to waste anyone's time or indeed affect the long term bottom line. Unfortunately, for those companies in the 'fear' camp, making sure they are able keep their heads above water is what they will be seeking from an almost immediate adoption of innovative IP technology. This will be due to their failure to have moved to such a strategy when their creaking legacy systems called for it in the past.

Volume

Citing the US Patent and Trademark Office's *Performance & Accountability Report*,² the annual number of patent actions filed, once again establishes a new record high with close to 6,500 cases filed in 2013. Similarly, according to the European Patent Office's website, filings for 2013 were up by 2.8%.³ If we were to look back five years, that's an increase of over 54,000 filings. The question one now has to ask is, how many ideas/inventions are actually submitted, vetted, reviewed, shortlisted, tested and shortlisted again... before being filed, and how are IP divisions coping with this influx?

This question is handled by IP divisions of companies or governments on a daily basis. Due to the digital age we live in whereby data can flow in and out of enterprises so easily, IP workers need to have the means to effectively manage information. By means, one is referring to the appropriate software to take on the uncontrollable growth of ideas. We live in an age where more than ever, it is advertised that ideas make money. Gone are the days where most ideas were brought forward by a particular sex, race, class or age; now, anyone can bring forth an idea as long as you have the digital capability. This suggests that companies need to get better at receiving IP submissions so they can rapidly get them through the IP lifecycle and ready for filing. This is where the notion and benefit of 'first to file' comes into play. If you have legacy systems which prove clunky, difficult to use or just plain slow, you are in trouble. Don't take my word for it; ask your inventors what they think of your invention submission process, system or tool. You may be surprised at the answer.

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Variety

As we all know, IP presents itself in a variety of different forms. Due to its complex nature, it is often the case that a patent for example, is in essence a combination of data and one or more algorithms. This enables a patent engineer to qualify as to the novel nature of said patent. The interesting hurdle here is again, novelty. As I have mentioned previously, velocity and volume mean it is challenging to manage the validity of the huge amount of ideas that go through an IP lifecycle. This is not helped by the enthusiasm or fear (dare I say) surrounding big data. It could, however, be argued that compared to the amount of data churned out in all aspects of the current industrial age, IP forms but a fraction. That may be so, yet it doesn't make it any less important to defend. In fact, in my opinion, it is one of the most important and impactful assets companies have.

The question therefore becomes, 'how do we manage and therefore defend it and the variety of forms it takes on?' Arguably, companies should fight technology with, you guessed it: technology. Big data or smart data, means IP divisions have more and more information coming through than most can handle. It also means more diligence, efficiency and accuracy is required. These are all signs pointing toward the need for robust, dynamic and sharp responses. There is a lot that human beings can do and one of them is enabling technology to do what we can do but faster, more accurately and resulting in more relevant correlations. Innovative technology is out there for us to use and has been for a while, however many companies are not accepting the invitation. The variety of ideas and inventions in IP mean that to gain market advantage, companies need to be quicker and more nimble. This is impossible with cumbersome, slow legacy systems dragging them back. This leaves companies in a place of being fearful of what their competitors are doing but without a dynamic system to spring them back in line with the herd.

So what?

If we went back to the beginning of this piece and to the concern held by company execs: 'if you asked me right now, I couldn't easily tell you how my company is doing', we can almost guarantee that their stance has not changed during the course of reading this article. Nevertheless, it would be safe to assume that they may now be in a position to appreciate the key role data and technology can play in managing their IP portfolio. As discussed, the 3V's will cause those driven by greed or indeed fear to act. The question is, will they see data-enabled technology as an integral part of their future success? The issues which may present themselves in the interim are twofold: will automating the patent review process render patent attorneys or agents redundant and; will an automated IP tool prove too logical and clinical and drive almost all ideas out at the beginning of the process – a system will always find a mere word match to existing patents, which may reject the idea on the basis of prior art violation.

Comment

It is clear that there needs to be a healthy balance between technical automation and human intervention. The question still remains however, which IP divisions, companies or indeed governments will seek to gain a competitive advantage by including data and technology in their infrastructure to fulfil their IP strategy? This doesn't necessarily make them greedy or fearful but merely, smart.

Footnotes

1. In a 2001, research vice president for Gartner Research, Doug Laney, defined data growth challenges and opportunities as being three-dimensional, i.e. increasing volume (amount of data), velocity (speed of data in and out), and variety (range of data types and sources). Gartner, and now much of the industry, continue to use this '3Vs' model for describing big data.
2. <http://www.uspto.gov/about/stratplan/var/USPTOFY2013PAR.pdf>
3. <http://www.epo.org/news-issues/press/releases/archive/2014/20140306.html>

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