Delivering effective 21st century trademarking

Even with the advance of artificial intelligence human analysts will remain a vital part of the trademark landscape for years to come, Rob Davey argues

Trademarking has always been an important point of consideration for brands, but it is more vital than ever today. With an incredible number of brands across all kinds of industries vying to make a name for themselves, intellectual property (IP) professionals must be able to work faster and more effectively in searching, clearing and registering the relevant trademarks for their clients.

In order to meet this challenge in today's landscape, however, human trademark experts must work together with advanced technology solutions, many of which are driven by artificial intelligence (AI). AI has already proved its worth in other industries, but it holds particular value in the legal sphere; according to Thomson Reuters, *"the next few years will likely favour lawyers who can use partial states of automation to outperform their peers."*

Even more recently, Thomson Reuters described AI as one of the top three emerging trends in 2017, saying *"the advancement of machine learning and other techniques in artificial intelligence are giving businesses and their development teams the opportunities to design data-driven applications that can recognize patterns to become sufficiently 'cognitive' to reduce and even automate repetitive manual work."*

When implemented in the right way, AI has so much to offer the trademark industry. It can be used to automate complex cognitive tasks and increase the effectiveness of search and watch results, while also dramatically improving overall speed and efficiency. However, while many have tried to reap the rewards of AI, only a few have managed to combine it effectively with human expertise for the very best results.

Human and machine intelligence at work

This is where the majority of trademark specialists have room to improve. Of course, AI technology on its own has a role to play in improving operations, but its full benefits cannot be fully enjoyed without it being used alongside human experts that can offer their own unique perspective on things. Researching trademarks is about getting all

of the details right, which is why solutions providers must have years of experience and specialised knowledge that goes beyond technology.

To achieve this necessary knowledge, the best providers will work closely with the industry's most experienced trademark analysts and linguists to learn what they do, why they are doing something in a particular way and why they choose certain results over others, for example. After collaborating this closely over a long period of time, businesses can begin to really think like trademark analysts.

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One of the commonly-used variations of AI in trademarking is what's known as neural network technology. It has been employed for years by the most forward-thinking trademark specialists, mostly for trademark watching solutions, and is designed to work in much the same way as the human brain works, determining and creating connections among related concepts. The neural network technology being used is 'trained' using vast amounts of specifically pre-processed trademark data to accurately perform semantic equivalence, which then determines the 'relatedness' of words, helping providers make even more accurate decisions.

More recently, providers have been using AI to deliver self-service clearance solutions that make it easier to help clients looking to trademark brand names, while sophisticated image recognition technology can simplify the process for those registering slogans and logos.

These solutions employ neural networks and other AI technologies to automate and accelerate complex trademark search and analysis processes. Deep learning techniques are also often used to identify semantically related terms, while helps to further improve recall to minimize the risk of missing relevant marks. These kind of advanced processing technologies can deliver thorough results in just seconds.

Considering how advanced these AI-enabled solutions are, it could theoretically be fairly simple for these to take the place of human analysts, but relying on technology on its own will likely lead to issues down the road. Instead, these technological systems must complement trademark experts instead of replacing them.

The value of experience

Simply put, the best human analysts possess a wealth of experience that allows them to make the kind of nuanced judgements that machines cannot. They also have deep, developed relationships with customers that gives them a clear understanding of their requirements — something that currently cannot be matched by technology.

This means they have the ability to look at search or watch results and rank them in a way that's most meaningful to the customer, which is far more difficult than it might sound at first due to the number of factors that play a part in determining what makes a mark relevant to that customer.

No matter how sophisticated an AI-enabled technology might be, it is of no use without accurate and reliable data behind it, and this is always best delivered by humans. The best trademark solutions providers will have a dedicated team of quality analysts whose responsibility it is to review and correct data from the trademark offices before adding it all to their own proprietary trademark database. This work involves reviewing hundreds of trademark records daily and finding errors such as a word mark that doesn't match the image — the kind of critical error that could be missed by an online searching tool.

Human analysts are also able to work with a level of proactivity that cannot be achieved through current AI technology. For example, a quality analyst would enhance the records to help ensure the relevant results are not missed, perhaps by looking at a multi-word mark or slogan and attaching strength to the most important parts of that mark. Once this is done, AI-enabled technology can be used to display all relevant results in a format that makes sense — a perfect marriage of human experience and technological sophistication.

Advanced in future technology

By now we have a clear idea of how human analysts will remain a vital part of the trademark landscape for years to come, but what's looming over the horizon in terms of future technological innovations?

Most importantly, next-generation trademark watching solution will deliver even greater speed and precision than that available today. Using AI to further refine semantics, the goal will be to catch even more relevant, targeted re-

sults in a bid to reduce risk and save trademark professionals valuable time — something that is important to any and every business.

Some providers are continuing their tireless work to bring AI technology towards an even more sophisticated and human level. Some are working on machines that can observe how a customer works and automatically fine-tune the findings to deliver results according to the unique needs of that customer, providing targeted insights that helps IP practitioners work even more efficiently.

Conclusion

The real-world needs of trademark professionals will always be the primary driving force behind any technological innovations in this industry. The potential of technology to make it easier for experts to digest massive amounts of information and make right decisions in fast-paced scenarios is extraordinary, but only if developed and implemented correctly. ■

Rob Davey is a Senior Director at CompuMark, a brand of Clarivate Analytics