

Intellectual Property in the wake of Artificial Intelligence

Introduction

AI is already being used in ways we may not expect such as in music composition or in writing of the news articles we read daily. It is certain that the use of innovative AI, particularly in terms of content generation, will grow to unimaginable heights in the coming years.

This begs the question, what does the future hold for intellectual property (“IP”) with the onset of such innovations? A decade ago, discussions about AI may have come across as science fiction – not so today. Many of today’s leading scientists argue that it is no longer a question of “if” AI may start becoming more autonomous and independent but “when”. On the transport front for instance, the onset and prevalence of autonomous driverless cars in the next decade is a foregone conclusion. Yet, autonomous cars seem to be only the beginning. However, as the IP arising from AI is a relatively new field, little is currently known as to how AI developers should best protect their IP assets. Moreover, because AI is under-regulated, concerned parties in this region may find themselves baffled and may consequently risk losing some potentially valuable IP. Nonetheless, while the AI sector evolves globally, based on the regional public records searched/available, there is no record of a Middle East based information technology (“IT”) developer attempting to patent an AI invention.

AI Skeptics v Optimists

In an interview with CNN, Elon Musk states, “we just don’t know what’s going to happen, once there’s intelligence substantially greater than a human brain”. Left unchecked Musk sees a bleak horizon with the dawn of AI. Bill Gates and Stephen Hawking are likewise concerned about what AI will (not may) become. Mark Zuckerberg on the other hand is more optimistic in believing that AI will be for the good of the people on all fronts including IP.

Interestingly, earlier this summer, news reports surfaced about Facebook’s emergency shutdown of two AI computers, which apparently started writing their own codes and developing a language to communicate with each other. Facebook had initially launched this project to develop robots, which would be good at negotiating with humans. Facebook’s developers then observed that the machines appeared to be forming their own ideas and improvising their communications to express them. Apparently, the machines developed a new language that only the machines understood. Facebook officially denied these reports but admitted its team did not understand the new code or language the computers wrote.

Facebook’s story is one example of what may become of IP resulting from AI. New source codes and new languages can be subject to patent and copyright protection respectively. However, if the developers of the AI cannot understand or explain the works which the AI wrote, how can they claim ownership of, let alone use, the IP to such works?

AI’s IP Potential

Turning back to Facebook’s official denial, in what may seem to be a publicity stunt, news and media outlets at the time queried whether the machines started to think and decide for themselves. While machines are currently far from attaining the level of human intelligence, quantum computing may rapidly change things on all fronts including IP. Briefly, quantum computing uses sub-atomic phenomena obtained from quantum mechanics to store and process data at a much faster rate than that of today’s computers. Quantum computers may be able to solve very complex problems that even the best computers of today

will never be able to solve. Combined with the current progress of AI, quantum computing, in theory, may enable AI to self-improve and self-learn exponentially and result in inconceivable amounts of IP. An AI may be able to produce thousands of years of human intellectual work within one week and with quantum computing, the numbers may become staggering.

How Current IP Arguably Applies to AI

To put things back into perspective, some readers may know that like other software, an AI software's standalone algorithms and code are themselves unpatentable under several jurisdictions including those of the Gulf Cooperation Council. Instead, IT developers should copyright any newly written codes if they want to protect their IP in them. However, while an IT innovation such as AI may result from the software code, its patentability fundamentally centres on its functionality i.e. how the developer designed the software to work. In this respect, the software's system or architecture within which the algorithms work together and what rules, operations and mechanisms apply, are at the core of the patent in question. Arguably, much of these same conditions should apply to patenting an AI.

Conversely, a copyright to a software code does little in terms of protection beyond preventing third parties from replicating the same code. Without a patent, a third party developer can arguably, and legitimately, write a different code that nonetheless results in an AI software with the same functions of the copyrighted software.

What to look for

AI is currently under-regulated in many jurisdictions around the world including the Middle East. Indeed it's likely that governments will always be lagging in regulating AI. This is even truer with respect to IP regulations. When asked about AI at the last World Government Summit 2017 in Dubai, Elon Musk advised the government attendees to "play close attention" to it.

Based on where we may be heading if the IP field remains unregulated in terms of AI, things may also become murkier when it comes to IP protection of AI if we are hypothetically dealing with an intelligent entity. Protection strategies will also evolve over time as AI evolves, and considerations will have to be made in terms of copyright, patent protection or even trade secrets, and which route will provide the developer/inventor the broadest and most robust means of IP protection.

AI Tamimi & Company's Intellectual Property team regularly advises clients on strategies for IP protection. For further information please contact Bachir Chakra (b.chakra@tamimi.com) and Ahmad Saleh (ah.saleh@tamimi.com).