



Patents - are UK based start-ups missing a trick?

The value of a patent strategy for start-ups in the tech industry

A record \$5bn from venture capital was invested in the UK tech industry in the first six months of 2019. A large proportion of this investment has been funnelled into UK start-ups focused on AI and Fintech technology. Despite this surge in investment, patent filing activity among these start-ups is surprisingly low.

At a recent lunch, hosted by the Carpmaels & Ransford Tech team for London Tech Week, early stage investors and tech company founders from around the UK considered the potential reasons behind this and the value of a patent strategy for start-ups.

The UK's tech industry has been attracting significant amounts of investment over the last few years, helping to create [one tech unicorn a month in 2018](#), behind only the US and China. AI and Fintech in particular are two sectors which have benefitted from an influx of investment.

Investment and innovation in a particular sector is traditionally mirrored by an increase in patent filing activity, but a closer look at patent applications published in 2018 suggests that this is not the case when it comes to UK start-ups operating in the Fintech and AI space. The ten most prominent Fintech unicorns in the UK had a sum total of one patent filing between them as of 2018, and AI start-ups had a similarly low number. These figures are noticeably lower than other sectors such as biotech and pharma where as of June 2019 just 4 companies with unicorn status hold several hundred patent filings between them. Even start-ups in low tech sectors such as food and drink displayed higher filing figures. Brewdog, a high profile disruptive brewery, has more patent applications directed to novel methods of brewing beer than most of the UK's software and AI unicorns¹.

In contrast, US based start-ups have typically been far more active in establishing early patent filings, with a key reason probably being a patenting mindset that is present in US tech companies. A [2015 working paper](#) from the US Patent and Trademark Office's Chief Economist showed clear trends in growth and employment for US companies which were engaged in patent filings at an early stage in their lifecycle.

This pattern is also at odds with trends in global patent filing activity. According to a [report by WIPO](#) the number of AI-related patents filed globally has grown exponentially since 2013. Unsurprisingly the top applicants have been large US and Asian tech companies with IBM, Microsoft and Toshiba filing the highest number of patents with over 19,000 patent families between them. This trend isn't just limited to large international companies though. Blue chip UK companies are also filing a number of patent applications in this area, albeit on a smaller scale. BT, for example, had 86 AI patent families as of 2017 according to an [IPO report on patenting by the UK AI sector](#). The question therefore arises as to why UK Fintech and AI start-ups are not following this larger trend? There are some potential reasons which are worth exploring.

¹ According to data from Espacenet and Orbit taken on 10th June 2019, and articles from Evening Standard, TechWorld and Forbes



Challenging patenting environment

In recent times, software patents have been difficult to obtain, depending on the type of innovation and jurisdiction. Following the US Supreme Court decision of [Alice Corp. v CLS Bank](#), huge numbers of computer implemented patent applications were rejected by the US Patent and Trademark Office (USPTO). The European Patent Office (EPO) has also traditionally been a challenging place for software patents. However, there are signs that the landscape is changing. The USPTO recently issued revised [software patenting guidelines](#) and issuances have now started to rise again after the lows following the Supreme Court's decision in 2013. [The Enlarged Board of Appeal at the EPO](#) is also currently considering the patentability of computer implemented inventions for the first time in a case likely to be decided in 2019. These changes signal a much more favourable outlook for patentees, which could benefit both large tech companies and start-ups alike.

Disclosure

Another challenge posed by the patent system is the requirement for disclosure. Secrecy can often provide a competitive advantage, particularly for businesses developing AI technology since the IP value is often contained in large datasets or specific algorithms. If patent protection is difficult to obtain, perhaps due to the issues flagged above, then the publication of the patent application without any certainty of successfully obtaining a patent could significantly undermine competitive advantages. For this reason, some innovators may consider relying on confidentiality and trade secrets to be a less risky alternative.

Patent filing figures indicate that these regulatory challenges have not suppressed the growing demand for AI-related patents among large, well-resourced tech companies in the US and UK. But for smaller businesses with less resources available, uncertainty around the value of patents and the disclosure requirements may well have made the prospect of filing patent applications less appealing.

Open source software

The AI and Fintech sectors have benefitted significantly from free and open source software. Fintech unicorns, such as Monzo, have been some of the movement's most avid supporters in the UK.

Open source agreements typically come with certain obligations to offer royalty free follow on licenses to software built on open source software, thus removing the opportunities to rely on monopoly rights from patents. Another consequence of open source software is that innovators have a larger pool of prior art which may need to be overcome in order to patent their software-based innovation.

The value of a considered IP strategy

Against this backdrop of uncertainty and complexity, it is perhaps not surprising that some UK start-ups may choose to delay protecting their IP to a later date. However, a considered IP strategy can be a key driver for growth for start-ups in any sector, and should be considered at an early stage.

There are clear benefits to pursuing a targeted IP strategy. A [recent report from the European Patent Office \(EPO\)](#) shows that SMEs that have filed at least one intellectual property right are 21% more likely to experience a subsequent growth period, and 10% more likely to become a high growth company (defined as a company which experiences a growth rate in turnover of 20% or more for a three-year period). In high-tech industries, such as Fintech and AI, the likelihood of high growth is 110% higher for SMEs that have filed one or more European patent applications.

A carefully structured patent portfolio can support growth in multiple ways. Firstly, it can help protect a start-up's competitive advantage, even if the portfolio includes mainly pending applications, since the applications themselves can be a deterrent to competitors and new entrants. This is particularly important for businesses looking to scale up activities in new markets and compete with large companies who are well-established in those markets. Secondly, a patent portfolio can be a valuable tool to use as leverage for securing higher margins and collaboration agreements, as well as a way of generating additional revenue through licensing.

Finally, the establishment of a patent portfolio in and of itself can be pre-requisite for attracting funding and investment at the appropriate stage in a start-up's life cycle. Companies seeking to be bought out often find that well-established tech companies place a high value on businesses with a solid portfolio protecting their core technology. The UK AI start-up Magic Pony, acquired by Twitter in 2016, is just one example of a UK tech business which was highly valued for its IP portfolio.



At the time of acquisition, it had filed patent applications on over 20 inventions². In order to take full advantage of these benefits, start-ups need to develop their IP strategy early on to ensure that core IP is not missed and the business is protected as it grows.

Whilst the patent filing figures for UK start-ups suggest that a patent portfolio is not a prerequisite for gaining unicorn status in certain sectors, it can still be an important factor in the success of a start-up's future growth. A patent portfolio focussed on a start-up's core technology from an early stage has frequently been shown to be worth investment. By seeking advice from patent attorneys early on, start-ups can benefit from an IP strategy which will help them meet their long term strategic goals.

If you would like further advice on any of these issues, please contact the Carpmaels & Ransford Tech team.

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² According to data from Espacenet and Orbit on 4th July 2019

Need advice?

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