



Clearing Hurdles in the Race for Blockchain Patents

May 23, 2017

By Paul Horbal and Ryan De Vries

Blockchain technology is finding more applications every day. As the many benefits of blockchain technology are increasingly recognized, efforts to protect new innovations and improvements to blockchain technology have led to a surge in patent filings. Many of those patent filings may never be granted. When it comes to blockchain technology, successfully navigating the patent application process means understanding recent legal developments concerning patentable subject matter.

Earlier this year, the Economist [reported](#) that hundreds of blockchain-related patents are said to be in the pipeline, with financial firms among the most prolific filers. In the United States alone, the number of blockchain-related patent applications filed each year has gone from around 80 in 2014, to well over 200 in 2015. Many more are likely to have been filed, but are still lurking below the surface, awaiting publication.

Some blockchain patent applications have already progressed to issued patents. However, a large number of blockchain patent applications may face a difficult and uncertain examination process in the years ahead, thanks to a recent trend in patent law.

Like many other computer-implemented inventions, patent applications for blockchain technology are vulnerable to being classed as non-patentable subject matter. That is, they are not the “right” kind of invention to warrant a patent. Many computer-related inventions are often characterized as unpatentable abstract ideas during examination. Courts have consistently held that mere abstract ideas should not be patented, often reasoning that to allow such patents would improperly “tie up” scientific and technological progress.

Over the years, the courts have identified many different classes of abstract ideas that do not rise to patent-eligible inventions. In the FinTech space such abstract ideas include: fundamental economic practices such as hedging and creating contractual relationships, the manipulation of data including obtaining and comparing data and using rules to identify options, methods of organizing human activity, and mathematical relationships and formulas. Blockchain-related inventions may, in some circumstances, likewise fall into these or similar categories.

To avoid such pitfalls, two things are needed at the patent application preparation stage: 1) a thorough knowledge of the technology; and 2) a clear understanding of the kinds of inventions that are likely to be found patent eligible.

United States

In the United States, the definitive word on the patentability of computer-related inventions comes from the U.S. Supreme Court in [Alice Corp. v. CLS Bank International](#) (*Alice*). In *Alice*, the Court held that abstract ideas alone are not patentable. However, the Court also emphasized that claims directed to an abstract idea can still be patent eligible if they also contain additional elements that amount to ‘significantly more’ than the abstract idea.

Elements that may amount to ‘significantly more’ include improvements to another technology or technical field, and improvements to the functioning of the computer itself, such as making the computer faster, more secure, or more efficient. Other elements that may be considered to add ‘significantly more’ to an abstract idea include doing something other than what is routine and conventional in the field, adding unconventional steps that confine to a particular useful application, or other meaningful limitations beyond generally linking the use of the concept to a particular technological environment.

In contrast, supplementing an abstract idea with instructions to “do this on a computer”, adding well-understood, routine



and conventional activities at a high level of generality, adding insignificant steps, or generally linking the use of the abstract idea to a particular technological environment or field of use are unlikely to be considered 'significantly more'.

In practice, drafting patent-eligible claims and patent applications will involve answering a number of questions. For instance, how does the invention improve the function of the computer? Does it make the computer faster, more efficient, or more secure? Furthermore, does the invention have an effect on real world objects? If so, what actions are caused by the invention, what hardware is engaged, and what transformations occur? The answers to these questions – which reveal the ways in which the invention achieves these benefits and effects – should be described carefully, and claimed appropriately.

Canada

The most recent word on patent-eligible subject matter in Canada comes from the Canadian Intellectual Property Office (CIPO) and, in particular, to CIPO examination guidelines drafted in response to the Federal Court of Appeal's decision in [Canada \(AG\) v Amazon.com, Inc. \(Amazon\)](#). In that case, the Court explained that software and business methods are not excluded from patentability, and held that an invention will be patentable if it has physical existence or if there is something that manifests a discernible effect or change.

In practice, however, CIPO has imposed a far stricter test for patentable subject matter. CIPO directs its patent examiners to look for the "problem solved" by the claim, and ask whether a computer is "essential" to solving the problem. Examiners routinely find computers to be non-essential, if there is even the slightest possibility that the invention could be carried out mentally, or with pen-and-paper, in lieu of a computer.

In seeking to draft allowable claims before the CIPO, it can often be helpful to emphasize that the problem can only be solved through use of a computer, to emphasize that the inventor intended for the computer elements to be essential, and to claim computer-related elements that bolster the essentiality of those elements (e.g. "a method of providing, via a computer network, a service...").

Takeaways

The increasing prevalence and importance of blockchain technology suggests that it will have significant commercial value, and therefore so will the intellectual property that protects such technology. To build a valuable patent portfolio, it is critical to correctly identify inventions, and draft patent applications that can withstand patentable subject matter challenges.

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