

FEATURE ARTICLE

The Future of Patents

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During my college days, I had the honor of attending a lecture given by noted science fiction writer, Isaac Asimov^[1]. He shared with our assembled group his secret for predicting what the world will look like in the days to come. "All you have to do", he said, "is look at how humanity has always behaved in the past, and assume they will continue to behave in that way in the future".

He told us that one of the ways humanity has behaved in the past, is that there has always been a reactionary response to any major social, political, or technological change. A reactionary response like this appears to be happening right now in the field of patents. Patent coverage has become broader, and the public is failing to see the value in it. Unless patents become more effective at their primary purpose of disclosing valuable new inventions in a timely manner, reactionary forces are going to rein them in.

The judicial interpretation of the patent laws in the U.S. has been undergoing substantial changes in the past few years. Software is now patentable. Engineered life forms are patentable. Even methods of doing business are patentable. Many of these changes have been brought about by the U.S. Court of Appeals for the Federal Circuit. This is an activist court in the good sense of the word. If they can interpret the laws so that patents will provide the coverage needed to protect new fields of innovation, they will do so.

The tide of public opinion, however, has been turning against these changes. Patents are seen as being too powerful. Between the Amazon.com one-click patent, Ronald Katz's call center patents and most recently, the NTP patents that are being asserted against RIM, the maker of Blackberry® email systems, the public perception is that patents give too much protection to inventors relative to the good they bring to society.

Witness two rule changes that the USPTO has recently proposed that are ostensibly being made to improve the efficiency of patent examination. One of the consequences of these rule changes is that, if they are implemented, it will be much more difficult for inventors to get broad patent protection for their inventions. Thus these rule changes may be more of a reactionary response to overly broad patents than a genuine attempt to improve efficiency at the patent office.

The public may be right. Patents may have become too powerful relative to the value they bring to society. Perhaps the problem is with patents themselves. Perhaps it's time for them to evolve into a new form.

Patents were originally developed in the 1600's as means for governments to encourage the revelation of otherwise secret inventions. Patents had to contain enough information so that another person skilled in the art could read them and recreate the inventions disclosed therein without undue experimentation. If they met that criteria, then the country they were filed in would grant the inventor a limited right to prevent anyone else in that country from making, using or selling the invention.

Patent disclosures were limited narrative descriptions of how to make and use an invention. The descriptions were supported by simple line drawings if necessary. This was due to the historical, technological limitations of how

patents were distributed. They were published in books using moveable type presses and hand carved plates for drawings.

Examination of patents was by hand and took about three years. This was fine given the slow pace of technological development.

Except in extreme cases of questionable utility (e.g. flying machines), there was no need to prove that a given invention actually worked.

This is still largely the same way it is done today. Disclosures are limited to narrative descriptions; drawings can only be in black and white and must fit on standard sized pieces of paper for printing purposes; examination takes well over three years; and, except in extreme cases of questionable functionality (e.g. cold fusion) there is no need to prove that a given invention actually works.

This may have been OK in the days of steam ships and horse drawn carriages, but it fails today. If patents are once again to become a valuable resource for promoting the revelation and transfer of otherwise secret but useful inventions, then the mechanisms used for disclosing these otherwise secret inventions and the means for demonstrating their usefulness must keep up with the times.

Open Source software has already made this transition. Open Source software is a new method for promoting disclosure of innovations in the field of computer programming. Computer code is considered to be “open source”, when the source code is made publicly available under the condition that those who improve the software must also make those improvements publicly available as Open Source. The Linux® operating system is the most well known example of useful and valuable software being developed by the Open Source process. Open Source computer code, however, is widely used in many areas of software development. In fact, some might argue that it’s nearly impossible to find software that doesn’t incorporate Open Source code to some extent^[2]. This is true even in the financial services industry.

One of the reasons for the success of Open Source is that its disclosures are immediately available in a format that’s immediately useful. It’s on the Internet and it’s source code. If you want to see if a piece of Open Source software works, you download it, compile it, and run it. If it doesn’t do everything you want it to do, you modify the source code and improve it. You then make your improvements available as Open Source and others can benefit immediately from your work.

One of the problems with Open Source is that it is strictly a barter system. The only reward that is available to those that disclose their source code is access to more source code. This is great if you like source code, but if Open Source is to become a viable alternative to patents it must provide rewards which can be in whatever form the discloser finds most valuable. That’s what money is. Until monetary rewards are available for Open Source disclosures the way they are for patents, Open Source will be limited to the communities of innovators that will be satisfied with bartering their services for services in kind.

Isaac Asimov was an inspiring speaker. His message about the universal reactionary response to all change has stayed with me. We are seeing that reactionary change play out in the field of patents due to the recent changes in the types of inventions that patents can cover. The proposed rule changes by the USPTO is one example. Whether or not these particular rule changes are ever implemented is irrelevant. Some sort of constraint on patent rights is coming soon unless patents themselves evolve into a more effective and valuable means of disclosure.

[1] Isaac Asimov is the author of I Robot and other science fiction works.

[2] The widespread incorporation of Open Source into proprietary software poses a legal risk to those that do it. According to most open source licenses, any software that incorporates open source must itself be Open Source.