
I am commenting in particular on the wisdom of providing patents on algorithms, from the point of view of a practicing computer programmer.

The U.S. Constitution empowers the congress, and by delegation the patent office, "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The patent office should interpret this decision with this overarching purpose in mind.

For the patent office to fulfill its constitutional mandate, its policies should promote the progress of science and the useful arts. In the case of patents, this particularly means to promote investment in inventions and along with this discourage the use of trade secrets, so that useful inventions are created and widely shared.

If the policies are instead restricting the widespread use of inventions that would be created anyway, they are unwise policies and should be changed. This is especially true if the usual effect of a category of patents is for patent owners to restrict the activity of competitors who have made independent discoveries.

In these cases, trade secrets would have been useless; the incentive to create was sufficient without the statutory monopoly conveyed by the patent. Therefore granting the patent was a loss to the economy as a whole.

If patents on algorithms were serving a useful purpose, it would be common practice for programmers to search existing patents in search of solutions. That is, when confronted with a difficult problem which they needed an algorithm to solve, they would search first expired patents for algorithms which they could freely use, and then patents still in force, looking for a less expensive alternative to developing their own algorithm.

From my own experience and from questioning other programmers, including some who have patents on algorithms, this is not done. It is a ludicrous idea.

In most cases, a suitable algorithm can be created by the programmer without searching for prior art. In addition, there exists in academia a large literature of
freely available algorithms. These algorithms are explained with the intent of being easily understood and reused. The motivation for publishing these algorithms is not to gain licenses for their use, but rather to gain recognition for inventing them. The patent applications do not begin to approach the usefulness of this literature. Therefore the patent literature is ignored.

In fact, when the patent literature is actually searched, it is searched, not to find helpful ways of writing programs, but to avoid a minefield of ways of writing programs that encumber the program with legal difficulties. This is the exact opposite of what our wise founders intended in our constitution. This reduces, not enhances, the productivity of programmers and the progress of the useful arts.

Therefore the patent office should resist any temptation to grant or preserve any patents which restrict the free use of algorithms. This would be contrary to the spirit of this recent Supreme Court decision. The Supreme Court, in this decision, affirmed that algorithms and other abstract ideas are not patentable.

Therefore, an answer to the question, "What are examples of claims that meet the machine-or-transformation test but nevertheless are not patent-eligible because they recite an abstract idea?", is, "any claims that would result in restricting the free use of an algorithm".

Respectively,

Michael Scudder