

A comparison of copyrights and patents

Ben Klemens

10 March 2008

The average person on the street will tell you that copyright is for printed creative works like text, paintings, or musical compositions, while patents are for functional physical devices and processes.

But here in the modern day, that basic intuition just doesn't match up with the reality of U.S. law. The two regimes have been growing closer over the last few decades, which means that the things that some think of as the key distinction between the two are not much of a distinction anymore, while other features are of increasing importance.

Subject matter There are an awful lot of types of work that could be covered by either system. In the *absurdist plays* section of my bookshelf, I've got a copy of *Endgame* by Beckett [1958]. Although it is plain text, it is a series of instructions for actors, comparable to a series of instructions for people on an assembly line. If you'd like to excise words entirely, the publishers added a short bonus play, entitled *Act without words: A mime for one player*. The stage directions are text, but are entirely about how props or the actor should move, to achieve a final goal [which I take to be demonstrating learned helplessness to the audience, but I'm sure Beckett had something much broader in mind].

In fact, for any plain information, there is some sort of physical medium upon which the information is recorded, be it a piece of paper, a computer's hard drive, or your brain's neurons. In the last decade or so, the U.S. courts have ruled that that physical medium makes the information patentable. The key ruling on this one is *In re Lowry*, which is for a data structure on a computer. "More than mere abstraction, the data structures are specific electrical or magnetic structural elements in a memory." There used to be a *printed matter doctrine* that states that you can't patent a surface (paper, a ribbon) just because the information written thereon is useful; Knight [2004] argues that under current law, the printed matter doctrine has been eliminated, and I agree.

Right now, the courts are scrambling to draw some sort of line to say that tax loopholes, plays, and musical compositions are not patentable, and I'm sure that six months from now such a line will exist. But in the mean time, for things that could be expressed as text on some sort of medium, the difference between copyrights and patents largely lies elsewhere.

Duration Patents provide a limited monopoly for twenty years from the date of filing. The exact duration of copyright has many conditions and exceptions, so here I'll just

say that it's in the ballpark of a hundred years. As we'll see below, it somewhat makes sense that patents should expire much more quickly, because they offer greater power.

The economic life of most works, fictional or functional, is under twenty years anyway, so for most works the duration of both types of protection is the entire economic life of the product. Many works do shine for much longer than twenty years, but for most products we must again look elsewhere for the big difference between patents and copyright.

Scope I've seen many people state that copyright covers only the literal text of a work, while patents cover the broad idea. Both halves of that statement aren't quite correct. When something could be covered by both copyright and patent, the scope of the two forms of coverage are increasingly convergent.

On the copyright side, consider fan fiction. Many people enjoy writing stories based on their favorite fictional characters, usually involving some number of them fornicating with each other. They use the name and characteristics of characters from a published work, but every other word in the text is entirely their own. There is minimal literal copying, if any. The lawyers call this sort of thing a *derivative work*, and it violates copyright as much as would a direct copy of the original work. See the Chilling Effects Fanfic FAQ¹ for examples and details.

So the scope of copyright is a little more patent-like than it is often made out to be. In a software context, if party B sees party A's code written in FORTRAN, and then produces a similar program in Java, then party A has decent odds of claiming the Java code is a derivative work and therefore infringing copyright. This sort of dispute sometimes crops up when employees jump from one company to another.

Meanwhile, patents don't cover pure ideas, but their implementation. This is good because it allows future designers to re-implement the same idea using new methods; this is known as *inventing around* a patent, and is generally credited as a positive side-effect of patents, because future designers are forced to think hard about a problem where they otherwise would have just copied the other guys. So patents are not for ideas, but the current implementation, which sounds roughly like the scope of copyright.

[For software, the implementation is very broadly construed, because courts have ruled that the actual process of writing code is a "mere clerical function." It's not often that a ruling insults an entire industry of people; in this case doing so even creates problems, because calling working programmers a bunch of code monkeys and denying any creativity in code design leaves little latitude to work around a software patent. But in theory, if a patent should "wholly pre-empt" a mathematical algorithm, then the courts say that it shouldn't be granted.]

So for a product that is primarily expressed in text, the differences in breadth of coverage between copyright and patent are not nearly as large as many make it out to be. Neither is intended to cover solely the literal text as typed by the original author, and neither is intended to cover the underlying ideas.

Registration Copyrights are automatic: the text you are reading is copyrighted by the simple act of my writing it down. The Library of Congress offers a registration

¹<http://www.chillingeffects.org/fanfic/faq.cgi>

system, but works aren't examined in the process, but just catalogged and possibly shelved.

The Patent Office, however, tears patent applications apart. The examiner is expected to find the prior literature, determine exactly how the application differs from the prior literature, determine whether the application's improvement is obvious to a person having ordinary skill in the art, and otherwise run the application through a long series of tests.

Finally, we have a night-and-day distinction between the two systems. The distinction means that copyrights are going to be a lightweight system, in the sense that the Library of Congress has one not-very-large department devoted to administration, gaining a copyright is literally costless (and full registration is on the order of fifty bucks), and no lawyers are involved. Patents are at the other extreme: the number of patent examiners is constantly growing, patent applications go through several layers of examination, and you can maybe do it for cheap, but don't expect to get anything useful and enforceable out of the process without the services of an attorney.

The difference in registration processes can partly be explained by the different powers granted by a patent or a copyright, which brings us to one more major difference...

Independent invention You can only be held liable for copyright infringement if you have seen a work and copied it. For most copyrighted works, it's pretty easy to identify direct copying anyway—if you're writing fiction about Superman and Wonder Woman going on a date, then you've definitely been directly exposed to both characters as drawn by DC Comics. If you worked at a company that writes programs for dentist's office administration, and then quit and start up a business that sells a program for administering dentist's offices, then your old employer would have an easy time demonstrating your access to the original program if the need arises.

Conversely, independent invention is not a valid defense against claims of patent infringement. If your work matches a patent that you've never seen or heard of, then you can be sued. It's that simple.

So copyright infringement requires direct imitation, while a patent holder can sue people who have never seen the patent or heard of the patent holder. This has major effects, which I'll pick up on next time.

References

Samuel Beckett. *Endgame*. Grove Press, 1958.

Andrew F Knight. A potentially new IP: Storyline patents. *Journal of the Patent and Trademark Office Society*, 86(11), 2004.