

Comments regarding Competition & Intellectual Property:

First, I find it very alarming that "intellectual property" laws and practices are increasingly going well beyond the bounds allowed by the Constitution. Article 1, section 8, paragraph 8 specifies that the only purpose for which exclusive rights can be secured is for "the progress of science and useful arts," and that such protection must be "for limited times."

In reality, there is no such thing "intellectual property" allowed by our Constitution. There is no authorization for inventors and authors to claim true property rights and assert absolute control over their creations. In all cases, exclusive protections must be based solely on allowing sufficient compensation "to promote the progress of science and useful arts." Any protections based on the notion of the author or inventor having absolute property rights are unconstitutional.

Also, such protections must be of limited duration. Thus, the Constitution does not allow perpetual renewal of copyrights as currently practiced.

I am very concerned that business interests are increasingly pushing patent and copyright protections well beyond the bounds allowed by the Constitution. These excesses are stifling innovation, hindering progress, interfering with beneficial competition, and seriously impacting the ability of individuals to make reasonable fair use of products and services for which they have paid.

Second, producers of commercial music, motion pictures, video products, and electronic printed material are grossly impeding reasonable, legal, and fair use of their products. Attempts at "copy protection" impair legitimate use of material by those who have paid for a license for such use.

For example, a few years ago, the copy protection on a videocassette movie I had rented produced an ugly stripe across the screen and disabled some display functions on my VCR. I wrote angry letters to the suppliers of the cassette and the material on it. I don't believe I have rented a videocassette movie since that time.

It is reported that some producers of DVDs put commercials in front of the feature and then lock out the user from fast-forwarding past the commercials. This is absurd! If I purchase a DVD, tape, or CD, I am completely within my rights to use the fast-forward features on the playback equipment as I see fit. I probably will not buy any DVD equipment while this absurdity is practiced (which may be a longer than one lifetime). However, if I were to purchase equipment with a fast-forward button on it, and I found said button to not function, I would file a warranty claim against the equipment. Ideally, the producer of media that locks a legitimate purchaser into watching the commercials should be arrested and tried for kidnapping.

I am informed that Adobe Systems is effectively prohibiting the reading aloud of public domain material that has been placed on their E-books systems. Subversion of public domain material is a very bad thing. When a person or business puts public domain material into some special form and obtains copyright protection on that special form, there should be no restriction on use of the foundation public domain material.

Some time ago, there were stories about the music recording industry getting all upset about people selling used vinyl records, music CDs, and tapes. The industry claimed they were being cheated out of royalties on the resale of the materials. This is also absurd. The producers of the material received full and complete royalties when the material was originally purchased. Any subsequent sale of the used media carries with it the license for which those royalties were paid.

There has been recent news media coverage of attempts by the recording industry to put copy protection on music CDs. Frankly, there is no such thing as a standards-compliant audio CD with copy protection,

aside from the simple two-bit generational control scheme in the original standard. Any attempt to foul up the formatting or other physical aspect of a CD to prevent extraction via computer is very likely to cause problems for users attempting entirely legitimate use of the CD. Around two decades ago, computer software makers used various "copy protection" formatting tricks of their floppies, but this caused legitimate purchasers much more grief than it caused any actual pirates.

Generally understood "fair use", recently codified in the 1992 Audio Home Recording Act, has always allowed a legitimate purchaser of material to make copies for backup, format conversion, and rearrangement of tracks. It is entirely reasonable for the legitimate purchaser of a CD to make copies of the CD for use in the car where they might melt in the summer heat, and keep the original in a safe environment. If a legitimate purchaser happens to have a record player or CD player at home and only a cassette player in the car, it is entirely reasonable for said purchaser to dub the record or CD to tape for listening in the car. I have a large collection of vinyl records, for which I paid full and complete royalties as part of the original purchase, and dubbing them to CD-R and/or tape is entirely reasonable.

It is extremely unfortunate that some short-sighted legislators betrayed legitimate purchasers of copyrighted material by prohibiting technology needed to enable legitimate fair use of material on which some half-baked "copy protection" scheme has been used. In cases of commercial exploitation of copyrighted material, the copyright holders should vigorously pursue remedies through the courts. In cases of non-commercial copyright violation, such as a teenager making a tape copy of a friend's CD, if record companies really want to enforce their protections, they should pursue remedies in the courts. Otherwise, there is no morally defensible grounds for prohibiting any technology for which there is a legitimate and fair use, in those cases where it is used for legitimate and fair use purposes.

Non-commercial copyright violation, such as a teenager making a tape copy of a friend's CD is not a new problem requiring new solutions. It is even debatable whether or not it actually constitutes a problem. Teenagers and others have been (illegally) copying copyrighted material for as many decades as sound recording equipment has been available to ordinary people. As far as "progress of ... [the] arts" is concerned, a very good case can be made that the low-level illegal copying actually causes an increase in for-profit sales of material. That case would certainly be supported by a comparison of the huge numbers of vinyl records, tapes, and CDs I have purchased over the years with the very small number of tape copies I illegally made during my college days. I am certain the grandiose estimates of "lost sales" by the recording industry are flawed, because I know for a fact I would not have purchased the same number of items if I had refrained from making those illegal copies, lo those many years ago.

Anticipating the future, there is great potential for the continued expansion of excessively restrictive copyright laws to cause serious harm to innovation and competition in many fields. For example, in license agreements for the formats of their multimedia data formats, Microsoft Corporation reportedly prohibits creation of any software to perform format conversion from Microsoft's formats to any other format. File format conversion capability is vitally needed if there is to be competition, because without conversion capability the owner of data is literally stuck with the owner of that one data format. I am already seeing a decrease in web site offerings in non-Microsoft audio data formats as a result of this anti-competitive practice.

The anti-fair-use, anti-circumvention provisions of the 1992 Audio Home Recording Act and the DMCA are already stifling innovation and competition in computer operating systems and application software. The Linux operating system is the only viable present or foreseeable competition to Microsoft Corporation's operating system--the operating system for which Microsoft has been found to have violated antitrust laws to illegally maintain a monopoly. However, the one software program (DeCSS) capable of bringing DVD playback capability to Linux is being squashed by overzealous copyright protection. Likewise, the one software suite capable of bringing to non-monopolistic operating systems the

capability to work with (public domain and other) textual material in Adobe Systems' E-books formats is being squelched by the anti-fair-use provisions of the DMCA.

Third, patent protection for software, at least as currently being practiced, is very alarming, causing great actual and potential harm to innovation and competition. For quite a number of years, and probably for many years to come, the greatest source of software innovation has been and will be open source and otherwise freely distributable software, including the foundation infrastructure of today's internet. Yet, much open source and free software is being prohibited or prevented because of undeserved patents.

Being listed as an inventor on five US patents, I understand about the importance of providing for recovery of investment for true innovations. However, as someone who very much wants to produce useful innovations and make them freely available, I find chilling the prospect that I could be prevented from giving away software of my own creation (or be sued into oblivion) simply because somebody with a huge army of lawyers obtained a patent that they think my software infringes on. From an ethical, moral point of view, something that would prevent me from using and/or giving away a piece of software that I wrote from scratch by myself is simply wrong. From this point of view, software patents infringe on my right to freedom of speech, which is supposed to be guaranteed by the Bill of Rights, which is supposed to be stronger than legislative patent law statutes.

There is a great need for provision in patent law to exclude freely distributable, non-commercial software (and hardware, etc.) from enforcement of patents.

Fourth, patents are strangling innovation and competition in the area of interface standards. There have been many stories in the trade press the past several years about companies hiding patents they hold, getting a particular technology made into a "standard" (ANSI, ISO, or other), then enforcing the hidden patent on the unwitting adopters of the standard. This stifles competition and innovation because of the resources that must be expended to try to develop around the patent, negotiate for licenses, litigate disputes, etc. To promote general "progress of ... useful arts", interface standards should be free of patents.

Patents on interface standards are especially crippling to the greatest source of software innovation, open source and free software. If software patents had been recognized during the early development of the interface standards on which today's internet is based, those patents would have strangled the development of the internet as we know it today, and in all likelihood, we would still be using disjoint dial-in bulletin board systems and multi-hop text-only email. The "web" as we know it today would not have happened if software patents had been in place a decade or two earlier.

Fifth, there are a number of problems with the way patents are being issued in the high-tech area. The trade press commonly carries stories about problems of patent examiners being too inexperienced, patent examiner pay scales being too low to attract people competent in the field, too little research being done in uncovering relevant prior art, and not enough time for examiners to do thorough enough evaluation of applications. It is common knowledge in the industry that patents are being issued that conflict with other patents as a result of these problems.

In order for innovation to thrive, there is a strong need to raise the bar on the level of novelty required to obtain patent protection. The present standard being practiced for "novelty" of invention is very much too low. I am listed as an inventor on five U.S. patents for items relating to high performance

microprocessor design. However, in retrospect, now that I know a little more about how patents are supposed to work, only one of them, if even that one, should have been considered novel enough to qualify for a patent. The inventions described in the other four patents are not seriously novel.

I'm not sure how this next problem can be solved in practice, but the 20 year patent lifetime (or even the former 17 year period from date of awarding of the patent) is far too long for the modern high-tech field. By the time patents on modern technology expire, the inventions they cover are long since obsolete. Thus, in a practical sense, the patent is effectively not of the limited duration required by the language of article 1, section 8, paragraph 8 that authorizes enactment of patent laws.

Finally, there has been a lot of talk recently about patents on "business processes", which is a very dangerous concept in relation to innovation, competition, and minimization of harmful monopolies. The two-way exchange of value in patents on technological inventions is beneficial to society, because the invention can be of use to society as a whole. The patent publishes the invention for the benefit of the whole rest of the society and makes the invention public domain upon expiration of the patent.

"Business processes", on the other hand are (with maybe a few exceptions) simply a way of redirecting customers' money away from competitors and into one's own pockets. This provides no net gain to society upon expiration of the patent and is thus no longer a two-way exchange of value. Simply put, business processes do not constitute "progress of science and useful arts" as much as they simply constitute ways of winning at a zero-sum game.

Because business processes have historically not been published and not been recognized as patentable, the body of prior art available for examination while processing an application is grossly lacking. This will undoubtedly lead to many cases in which a business process patent is enforced against a company that had been practicing the business process in question for decades but simply hadn't had opportunity to patent it.

Furthermore, there is bound to be massively more ambiguity in the description of business processes than of scientifically-based hardware and even software designs. This will lead to more cases where a large business with an unworthy business process patent will strangle the life out of a small business, stifling innovation and competition.

For purposes of establishing my point of reference, my background is as follows. After obtaining a BSEE in 1983, I was employed for 17 years under the job titles of component design engineer, senior component design engineer, and CAD engineer at a large semiconductor manufacturer. During this time, five U.S. patents were awarded listing me as one of the inventors for work on high performance microprocessors. Nearly two years ago, I left employment and enrolled in a masters degree program in computer science and engineering, which program I successfully completed. My present plans are to use investments as financial support and to contribute to innovations in open-source and other free software. If investment returns do not suffice, I would seek employment and/or do consulting in the computer industry.

Robert M. Riches Jr.
2813 NE Jackson School Rd.
Hillsboro, OR 97124