

I am an academic in the field of computer science. Most of my remarks are confined to that field, rather than more generally.

GENERAL QUESTIONS

1. How IP is awarded

The cost and complexity of obtaining patents is a disincentive, particularly for individuals and small businesses. The utility of patents appears to be mostly in their use as part of large portfolios (only suitable for larger companies in general).

The fee structure should not cause any perception of, or actual incentive for patent offices to award or refuse patents.

Comparisons between EU and US costs are not necessarily appropriate: Europe encompasses a range of traditions; it is quite reasonable for the costs to be higher.

In terms of the current systems, the assessment of patents appears weak in the area of software (i.e., the current legislative position appears to be against software patents, but practice allows them), more so in Europe than the UK. The level of novelty required might be too low generally.

2. How IP is used

The most appropriate mechanism for protection of software is copyright. This enables interoperation between competitors, thus preventing data lock-in and allowing further competition and innovation. Open data formats are very important for competition in computing; so data formats should not be encumbered in any way. (Perhaps something for a fair use exception?)

More generally, overlapping IP protection should be minimised to reduce complexity and cost. Since some may choose to apply for all possible protection, a level playing field is best achieved by reducing the overlap that can be sought.

3. How IP is licensed and exchanged

Free, libre and open source software (FLOSS) projects appear to be particularly disadvantaged by the use of patents even though they represent a vibrant and useful resource. There is typically no organisation or individual who can acquire relevant licences or join patent pools.

4. How IP is challenged and enforced

FLOSS projects are in potential difficulty here. A 2004 adoption of an open source solution by Munich was reported as stalled by patent fears.

Unintentional infringement should not cause ruinous impacts. Individual developers, in particular, (commercial, FLOSS, ...) will not likely be able to defend a claim simply on grounds of cost even if they have a good case. The mere possibility of such action can deter involvement in, and use of FLOSS as well as small scale commercial activities.

Many students gain useful experience and skills via FLOSS projects: this alone is a good enough reason to protect them. A long-term effect of aggressive patents would be to reduce the number of students entering further and higher education due to the reduction in such opportunities, thus reducing the innovators of the next generation.

SPECIFIC ISSUES

Current term of protection on sound recordings and performers' rights

There appears to be no good reason to extend the term of protection beyond 50 years: how would this create incentive for artists to create works? Is there a reasonable prospect of old works being made available?

If the term were extended, it should not be retrospective.

Copyright exceptions - fair use / fair dealing

The lack of a fair use statutory exception seems unduly harsh to consumers.

An early computer compiler (??one of the Pascal compilers) had a licence to the effect of 'treat this like a physical book: you can install it on multiple machines, but only one person can use (cf. read) it at one time'. The analogue to a physical artifact is helpful here.

Space-shifting (transfer to different media) and time-shifting should be permitted as fair use provided that it is not used for concurrent use. This would also enable back-up.

The fundamental question in terms of compensation for content owners is: what exactly is the consumer paying for? In the case of a piece of clothing, they are buying the physical object which can wear out. In the case of music, the physical artifact is less relevant: it is access to that particular music, whether on vinyl, a CD or via Internet download. Thus no additional

compensation is appropriate for content owners.

An interesting case for software concerns the common use of licences as opposed to sale. A clear statutory fair use exception should apply here, too, although time-limited access to services makes this much less clear. (I am happy to expand on this further if requested. Lack of time restricts me currently.)

This is also very closely tied to the following question on DRM.

Copyright digital rights management

There are a number of issues here:

- The security problems caused by DRM technologies: witness the recent issue with some Sony CDs. The interaction of multiple DRM systems on a single computer are unclear. There is a question of who would be liable for harm caused by such systems.
- Access to content can be limited to those with particular computers, operating systems, or devices.
- Future fair-use and archival can be inhibited. (I suspect this has been dealt with at length elsewhere.)
- Artificial partitioning of markets, e.g., DVD/CSS.

Circumvention of DRM should be explicitly permitted to allow the issues above to be addressed and for fair use to be realised. Those requiring the use of DRM should be held liable for prevention of fair use, access (e.g., blind users of ebooks unable to access them) and security problems caused.

Patents utility models

There may be a benefit for multiple tiers or classes of patents generally, with the protection related to the amount of effort expended in the invention. However, the overall balance of the system should be viewed as fair, and there should still be novelty in such patents. In particular, they should not be applicable for computing or business methods.

Legal sanctions on IP infringement

Individuals inadvertently infringing should not be liable to legal sanction. Education is likely a better long-term approach. Similarly, in respect of (b) (online infringement) those seeking sanctions should be aware of the ease with which computers can be used to accidentally publish material.

Those engaging in large-scale or commercial infringement (e.g., mass counterfeiting of DVDs) should clearly be subjected to (civil and criminal) sanction.

The use of 'submarine' patents by those who hold patents, but do not otherwise exploit them should be addressed. Perhaps only those actively exploiting a patent should be able to bring infringement proceedings; alternatively, exploitation of the patent could be a condition for grant of that patent.

Coherence between competition policy and IP policy

The use of patents in computing generally is perceived as inhibiting competition. Copyright is a far more useful mechanism.

(d) (Should competition law have a greater role to play in regulating IP?)

Yes: patents, copyrights, etc. are essentially monopolies. They must be balanced by competition law. So competition law must take a greater role: it must be faster and more effective as the legal system appears very slow relative to progress made in (e.g.,) computing.

OTHER ISSUES

Computing has been an extremely successful industry: this is due to the reliance on copyright, not patents. For software, other computer-related and business subject matter, patents should not be available, with the prime protection to these areas afforded by copyright. This should be made very clear, as the situation appears to be generally confused.

Any non-trivial information system integrates many potential 'ideas' which could be patented. It is difficult to search patents to avoid a complaint of infringement; this is particularly problematic in computing. Similarly, I expect patent examiners and applicants find searching for prior art difficult. In general, how could software developers effectively avoid patent infringement?

Competition is the only current incentive for improving security. There is no effective regulatory framework. The relation to DRM is of concern. We are increasingly dependent on the integrity of computers, so this needs attention.

There is a general problem with incremental innovation and simultaneous innovation. It seems unreasonable that one inventor may be granted a patent, while another who has carried out similar work is then denied.