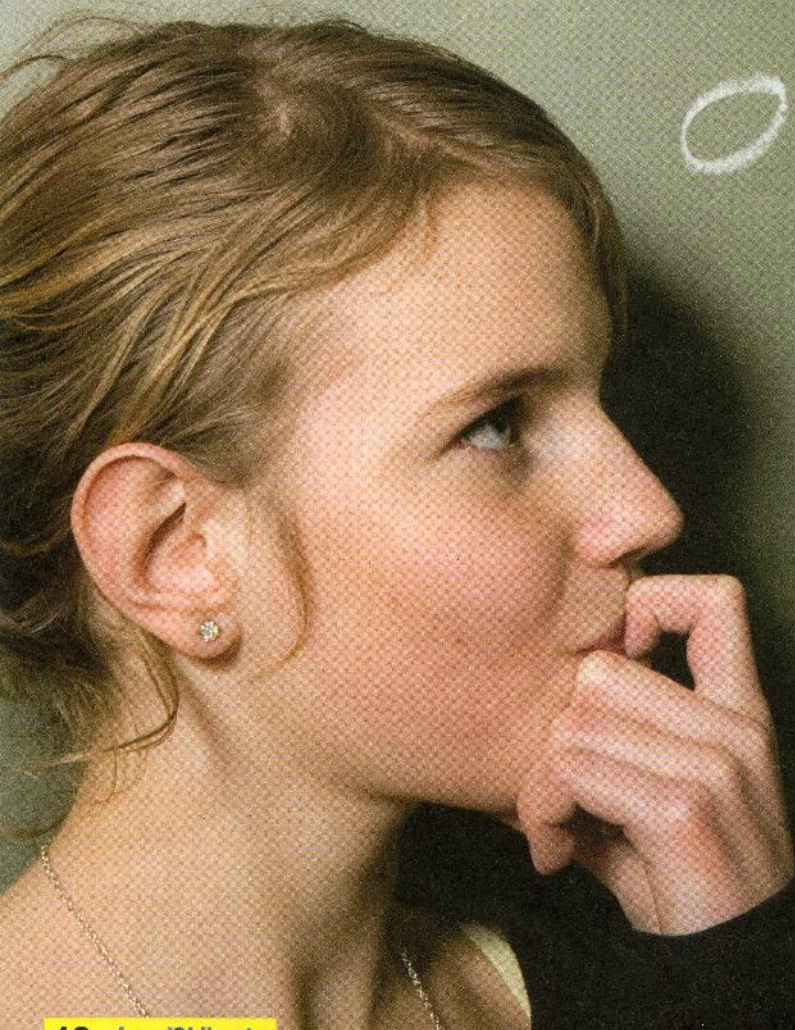


fresh thinking

A penny for your thoughts?



Intellectual property has become a contentious issue. What exactly is it for? Indeed who is it for? **Dr Lars Bækgaard** considers the issue of owning knowledge in a digital age in which ideas can be shared at the virtually cost-free click of a mouse

The justification for intellectual property

The development of the intellectual property agenda is pursued by governments striving to encourage innovation by giving a time-limited first-to-market protection guarantee for owners. This government-sponsored monopoly is embraced in the name of promoting cultural and economic progress and bringing general benefit to society as a whole.

INTELLECTUAL PROPERTY is the conceptual and legal framework protecting what has been termed the 'creations of the mind'. For some it can become a source of wealth that goes beyond our wildest dreams. Is it fair to use legal systems to reward idea creation with millions of dollars? What is an acceptable level of economical reward for an idea? And who should be able to enjoy that reward?—the creator themselves might be one thing; but should rights be extended to partners and heirs, or protected from death's natural limits inside enduring 'owners' such as trusts and corporations?

IP represents a major area of human endeavour over which property rights are now exercised. A country's property laws are one of its fundamental institutions. How a society recognises rights of property in large part defines it. As with real property and chattels, property in 'creations of the mind' can mean many things: the right to control the use of the property; the right to any benefit from the property; the right to consume, sell, rent, mortgage, exchange, or transfer the property; and the right to exclude others from the property. Intellectual property rights come in many guises.

Intellectual property may attach to music, literature, artistic works and inventions; and commercial symbols, names, images and designs. IP can be protected by means of a combination of legal forms, like copyrights, patents, trademarks, registered designs and geographical indication [on which last, see 'Uncorking the economics of terroir', *Land & Liberty* autumn 2008: Ed].

Copyrights and patents were first devised many years ago to protect authors', product inventors' and publishers' rights to payment for their efforts. In a world where more and more products are digitalised it seems necessary to raise the question—Are copyrights and patents the right tools in a digital world, where the cost of producing one more copy of a product—like music, software or even digital books—is very low indeed and tends to zero?

Older technologies like tape recorders could be and were used to produce illicit copies of copyright material, but they were usually of significantly lower quality than the originals. The 'conflict' between composers, musicians and their publishers, and music lovers, really took off only with the innovation of technologies that support digitalisation and easy distribution of high quality music. With digital music there are no significant differences between 'originals' and 'copies'. With the internet, opportunities for 'domestic' collusion in breach of copyright on a commercial scale became universally available.

In 2000 the rock band Metallica filed a lawsuit in the US against the online music 'sharing' service Napster, alleging copyright

infringement. The band had discovered that a demo of 'I Disappear', one of its new songs, was being circulated and played on radio stations before its official release. It also discovered all its studio material was available through Napster, in breach of copyright. The music 'sharing' was delivering no payment—royalties—to the creators of the music. Still a large number of fans were angered by the band's action. They destroyed their Metallica CDs in a symbolic protest. In 2001 Napster settled the suit after being shut down by the courts in another case.

Patents are used by the software industry to protect ideas that have been used in their products. The code itself—the instructions that control computers and other devices—is protected by copyright. Patents can be obtained for special innovative methods for, say, retrieval of data from a hard disk, or innovative methods for finding patterns in data. The industry uses patents and copyrights to protect its assets and income flows. A software development company can use a combination of copyrights and patents to ensure a high level of protection for its creations. The fact that Business 'A' develops word processing software does not prohibit Business 'B' from developing word processing software too, provided it writes its own code, and does not violate A's patents. But there is a question whether the increasing number and the nature of patents is harming competition.

In 1999 Amazon.com successfully patented its '1-Click' system of on-line retail purchasing. Traditionally, on-line retailers have required their customers to use a 'shopping basket' system. But industry studies revealed that some 60-65% of online shopping baskets were abandoned before being checked-out—consumer frustration with the purchase process seemingly being to blame. A Stanford University research team described Amazon's patent as "an online system allowing customers to enter their credit card number and address information just once so that on follow up visits to the website all it takes is a single mouse-click to make a purchase." By adopting a 1-Click method for online shopping, and permitting their customers to avoid shopping carts entirely, Amazon made the purchasing process simpler and faster, so more transactions would be completed. But Amazon's successful patent application prevents other on-line retailers from adopting the same straightforward process—unless licensed by Amazon. Many regard the grant of patent to be bizarre—although it has stood for ten years.

Amazon's commercial actions appear to have unwittingly fuelled the movement against software patents. Paul Barton-Davis, one of the company's founding programmers, called Amazon's 1-Click patent "a cynical and ungrateful use of an extremely obvious

Critics say intellectual property...

- confers undue monopoly rights on owners
- brings deadweight loss to the economy
- induces its own expansion and incentivises rent-seeking behaviour
- owners pool resources and form organisations to further rent-seeking
- as a legal concept expands only as general public freedoms are confined
- means ideas become 'inviolable' property granted by natural law
- means 'creations of the mind' less protected to promote common good
- is 'non-rivalrous', but has pejorative infringement terms—'piracy', 'theft'
- is 'intellectual protectionism'
- immorally excludes, since today all can have every idea at marginal cost
- as a term is a conflating catch-all, lumping together disparate laws
- supports corporate interests gaining monopoly rights over nature
- raises profound questions over the appropriate subject of patent
- should not have corporations allowed as 'authors' or owners.

Other approaches to intellectual property

Several initiatives let content be released into the public realm and used under less rigid terms than established intellectual property law allows:

Copyleft is the antithesis of copyright. Copyleft licences such as GNU/GPL may require copies and derivatives of the source to be made available on terms no more restrictive than those of the original licence. So Copyleft is, ideally, viral. As they say: "Copyleft—all wrongs reversed".

The **Free Music Philosophy** allows listeners to download songs, copy CDs or sheet music, or record live performances. 'Free' refers to 'freedom'—or as its proponents put it: free as in 'speech', not as in 'beer'.

Creative Commons is a permissive licence that allows the originator of a work to release it under licence with a number of interchangeable stipulations such as the requirement for the work to be used only in non-commercial contexts.

technology". Jeff Bezos, Amazon's CEO, is himself critical of IP law. He proposes the lifespan of software patents should be shortened from 17 years to between three and five: "At internet speed" he says, "you don't need 17 years".

Many argue Amazon's patent has sloped the playing field steeply against its competition. Originally only a bookseller, the company has taken the opportunity of the intervening years since 1999 to develop itself into the web's leading department store. So is 1-Click the clearest example of 'patent stupidity'?

Developers of commercial material such as software code also use copyrights to protect their commercial interests. People and businesses that buy software do not buy the code. They buy a right only to 'execute' the software—a 'use' right in other words. Consequently purchasers have no right to modify that software for their own use (beyond the manufacturer's intended scope for personalisation), or to improve the software by correcting errors or adding new functions. They have to use the software as it is. In order to improve it purchasers would need legal rights to modify it. In most cases that is not possible, or not financially viable.

'Open' software is a developing feature in the information technology field. The term implies that the code is openly accessible for more than a restricted group of developers. The computing operating system Linux for instance was created—and is kept updated—by an open global community of internet-linked developers that have access to the code and legal rights to modify it. Many core office and home applications have also been created and are available on an 'open' basis. Firefox is the world's second-most popular web browser in use worldwide—after Microsoft's Internet Explorer (about which IP issues have raged to the highest courts)—and is open source.

The open software movement arose as a response to the closed world of traditional software development, where developers do what they can to keep all software rights to themselves. That is not to say that copyright on open software like Firefox does not exist, or that rights are not protected—it is simply that such copyrights (and the intellectual property they protect) are held in public trust, and defended for the public benefit. In Firefox's case this is achieved through the Mozilla Corporation and Mozilla Foundation—a not-for-profit organisation that exists to lead and support the Corporation's open source projects.

So it might be said that a battle has been joined in the open software movement: between the virtual *Enclosers* on the one hand, and the virtual *Diggers* on the other; with the battleground being rights to the functional language of our digital life—of what some argue

is the 'virtual commons'.

The term 'commons' originated as a reference to an unenclosed area of the earth over which a community could exercise certain traditional practical rights: for instance, a right to pasture cattle or other animals; a right to fish; a right to cut firewood or take sods of turf for fuel; a right to take sand and gravel; or a right to take sufficient timber for the construction of the commoner's house.

Recently the term 'commons' has been used to denote shared access to and use of resources in a broader sense than the literal one of the unenclosed natural world. The Creative Commons, for instance [see lower box p.13], is an initiative whose very idea can be seen as a systematic way in which copyrights can be softened by their owners, in order to allow others to modify works according to specific and author-prescribed rules. For example, a composer of a piece of music may let others create new compositions around it, whilst keeping the copyright to the original piece. Open software can be considered as a sort of creative commons of software code where large communities of developers can contribute to software development.

Intellectual property is in its very nature different from physical property. It is associated with what are known as 'non-rivalrous' goods. Physical property is located in physical space and can be taken away unlawfully from that place—stolen. If two people exchange between them a piece of bread and a piece of fruit, each of them is left with one eatable item: they are exchanging 'rivalrous' goods—those whose consumption by one prevents simultaneous consumption by another. On the other hand, if two people exchange ideas, they are both left with an extra idea. In that sense an idea cannot be stolen—taken away from a place: it only can be shared—that is, copied or multiplied.

The growth of open software, the concept of creative commons, and the pronouncements of numerous consumer organisations around the globe strongly indicate that there is a widespread dissatisfaction with the current restrictive use of copyrights and patents. The ease with which high quality copies can be made and distributed in the digital world has stoked this dissatisfaction.

Is it possible to reform IP law provisions to ensure fair rewards and compensation to creators, and at the same time support a greater degree of knowledge sharing and learning than at present? Creators should be rewarded for their efforts and investment—although a huge number of open software developers work many hours without any other rewards than the creative work itself: and an increasing number of businesses let their customers and users

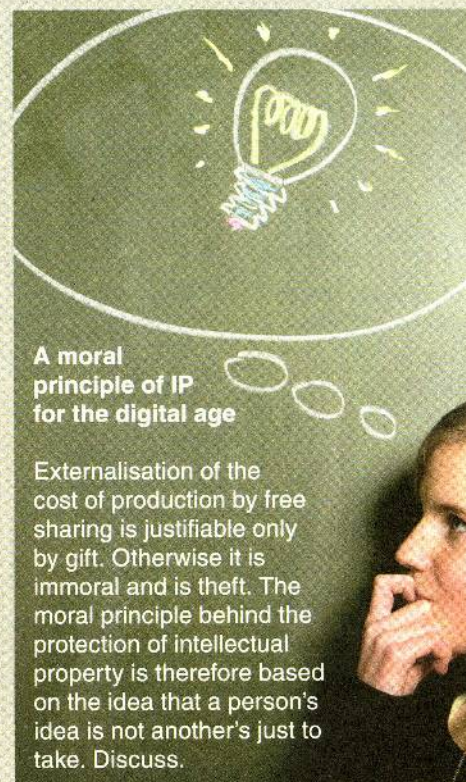
participate in innovation of new products and services with little or no compensation.

Is there a limit to the types of innovations that can be patented? Software patents are process patents in the sense that they protect certain ways of doing calculations or other processes in software. Should organisational processes be patentable? Should the processes of nature be patentable?

The biotech industry uses gene and other patents to create medicine that is too expensive for the poor people who need it most. Ironically, many of the gene patents are based on natural resources sourced in the very countries in the South with the poor people who cannot afford the medicine.

To what degree should knowledge and ideas be treated as shared resources for learning and innovation that can be used by anyone? How can we keep all knowledge related to nature and its genes and processes as a shared resource for all people? These questions are profound, and in an age of great change we need to keep asking them. We have inherited our concept of IP from a previous era. If we ensure that our approach to reform confirms all people's equal right to the value of their effort, and ensures all people's equal right to the economic value of nature and its resources, we may be able to find the answers we need to these questions for our own age. **L&L**

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A moral principle of IP for the digital age

Externalisation of the cost of production by free sharing is justifiable only by gift. Otherwise it is immoral and is theft. The moral principle behind the protection of intellectual property is therefore based on the idea that a person's idea is not another's just to take. Discuss.