Profit Without Copyright

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ABSTRACT. An elite consensus appears to have formed around the strengthening of IPR regimes. At the same time, many people, particularly in developing countries, are questioning the idea of paying for what they intuitively sense might possibly be free. In view of the potential for global dissensus on this issue, businesses that produce and distribute explicit knowledge, or digital sequences, would be quite prudent to start making contingency plans for a new form of global capitalism: one characterised by much weaker IPR regimes. Competitive business strategies based upon rival-complementarity (i.e. physical goods and human services that complement digital products) indicate the feasibility of a global economy-of-things, resting upon a freely accessible ecology of knowledge. This might be built in the future, in much the same way that an industrial economy was built, historically, upon a natural ecology of available land and biosystems. Such an arrangement conforms to several rather fundamental political intuitions.

1. Introduction

Recently, human chromosome #22 was decoded by a not-for-profit research team. The sequence of about 30 million bytes was posted on an internet website, freely available to all. A spokesperson suggested that "it would be a major blow for science and humanity if the human genome became a piece of commercial property". At the same time, in parts of Africa and elsewhere, millions of human lives are at stake, due to the high prices of proprietary versions of drugs such as the AIDS cocktails. It is inevitable that some states accept "parallel imports" from producers who have not been subject to constraints based upon Intellectual Property Rights (IPR) laws.

Episodes such as these are part of far larger and more important macro-trend. IPR laws, originally devised in quite different cultural contexts of production and consumption, have now moved to centre stage, not only of business activity, but also of a wider social and political life. The present paper explores some of the implications of this trend for business strategy and policy. The following section briefly describes the industry strategy of rival/non rival reversal (i.e. the high pricing of non-rival goods, low pricing of rival goods) that has been made possible by extending traditional IPR laws into the digital domain. It is then noted (section 3) that there is a growing dissensus surrounding the whole issue of paying for explicit knowledge and information that might well be quite freely and available.

It is this current dissensus *per se* that must now be taken into account and managed, pragmatically, by today's business strategists (not to mention politicians and the other stakeholders). Accordingly, sections 4 and 5 of the paper set out some generic business strategies for profit in the absence of "proprietary" protection of digital sequences. Section 6 briefly discusses the policy-level and political dimensions of a world without copyright, such as the rather ironic conformance with libertarian political intuitions, as well as the

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implications for distributive justice. The final section alludes to the metaphor of a new ecology of knowledge, coupled with varied possible motives for political intervention in such an "ecology".

2. Rival/non-rival reversal

In the late 1980s a spokesperson for Apple Computers predicted that by the year 2000, hardware would be given away free, with profits flowing from the software. It was implicit at the time that this strategy was going to be greatly facilitated by IPR laws, especially copyright extended to apply to digital works (including programs). Furthermore these laws were to be promulgated and enforced by governments working with industry (an alliance that Adam Smith himself, incidentally would surely have condemned). Many producers of digitalisable works, or digital sequences (DSs) have subsequently followed a rather similar strategy. They have used economies of scale and scope in hardware production and distribution, to install an affordable base of hardware that has leveraged the value of their produced DS. IPR laws have been routinely invoked and advertised, to help the industry as a whole capture as much downstream revenue as possible, from selling copies of DSs.

This strategy has been spectacularly successful. To some, it is nothing less than a miracle; to others it is closer to being a "con-trick of Global proportions" (a phrase that Noam Chomsky once applied to global capitalism, in general). With hindsight, it is at least noteworthy that such a radical business concept (i.e. expensive non-rival knowledge) went unchallenged, for so long, by so many consumers, citizens and their governments. Simple common sense, not to mention natural rights arguments of the type asserted by John Locke (regarding property rights over land), dictate that once a non-rival good has been produced and is not a private secret, it should be quite freely available to all those entities who can make constructive use of it. Furthermore, money and prices should be used to facilitate exchanges or allocations of scarce rival goods.

Common sense, critics might point out, can often be "non-sense", overlooking vital considerations, such as the supply side: the need to provide incentives and rewards for innovation and production, with a commensurate return on invested capital. Yet there are a variety of ways (sections 4 & 5) that businesses and capitalism in general might prosper, in the complete absence of the copyright and patent laws that currently restrict or forbid replication of DSs. Furthermore, there can be substantial innovative activity in the fields of science, technology and entertainment in the complete absence of any pecuniary motives, as exemplified by the case of the human genome.

3. Dissensus

In the last decade, despite dissenting voices (e.g. Helpman, 1993; Shiva and Holla-Bhar, 1996; Thurow, 1997; Calton, 1999; Donaldson, 1999, to mention but a few), an elite consensus appears to have formed around strengthening and cross-border harmonisation of IPR regimes (as indicated, for example, by the 1993 TRIPS agreement). In the political level discourse (e.g. Proceedings of the WTO) the dominant consideration or justification has been the securing of incentives for producers and distributors, or taking care of the supply-side. Powerful professional and industrial groups, located mainly within the developed regions also have a considerable interest, or stake, in this outcome and they have lobbied accordingly. These groups include not only producers and distributors of digital works, but also the legal and accounting professions, as well as the military (who have an interest to the extent that IPR regimes are believed to increase the rate of local technological innovation).

Yet, these groups do not have a monopoly of understanding of human systems, with technology. Rather, each group can be depicted as a productive strategic entity: producing ideas, deploying a vocabulary, and generally trying to co-create a future macroenvironment in which the group can prosper, in future (e.g. Singer, 1996a). These activities do not necessarily serve the interests of consumers, nor citizens. Indeed, as Adam Smith noted, they typically oppose them. As a result, one can identify competing or conflicting discourses. There is an elite discourse on IPR, which deploys the vocabulary of piracy, attracting investment and measurement of intellectual capital, with another, equally contemporary discourse concerning dis-

tributive justice, privacy, personal freedom and totalitarian corporatism (not to mention related concerns about market power, monopolistic tendencies and network externalities).

At a more local level, many people are questioning the idea of paying for what they intuitively sense might possibly be free, or extremely cheap (and in many places has indeed not been paid for); whilst smaller producers of DS's now have reason to complain (and litigate) about the monopolistic tendencies of larger players, tendencies that have been fostered by IPR regimes. To the extent that the internet is seen to be a social and political tool (as it was originally) it seems increasingly prudent to assume that this "dissensus" will increase in the future. Indeed, the contradictions inherent in democratic capitalism, that tend to pit corporate or shareholder interests against consumer/citizen/employee (Smith's publick) have become starkly apparent and they are literally striking closer to home.

4. Excludability, niche & disruption

In view of the dissensus (not to mention the high proportion of replicated software in use all over the world), efforts to put in place global administered systems of copyright (e.g. copymart, access right) now appear unlikely to succeed. Accordingly, producers and distributors of DS's, not to mention other stakeholders, would simply be prudent to start contingency planning for a new form of global capitalism: a digital networked economy without copyright. (Other IPR's, that are directly related to producers' identities, such as trademarks and moral rights, have a much less contentious justification and a much better chance of survival.) This scenario is made feasible by the existence of several generic business strategies for profit without copyright, that can pursued seperately, or in in any combination. They include (i) excludability, (ii) special niche, (iii) disruption and, especially (iv) strategies of non-rival complementarity. These are briefly described below and in section 5.

Excludability

This strategy relies upon technical copy-protect features of the produced DS, such as software that self-destructs, or that can be copied just a few times. The protection can create an interval of time in which early adopters in a global market might be willing to pay for the DS, but they cannot distribute it widely themselves. There is also the possibility of positioning a given DS as an exclusive status good, so that excludability becomes a value added feature, reflected in a higher price, whilst the buyer has a disincentive to copying and distributing it.

The limitations of this strategy are quickly apparent. First, shadow diffusion of the DS is retarded (at least until somebody "hacks" the protection and posts the DS on a website), so that Global share of mind is reduced and there is no possibility of establishing a standard based upon the DS. Secondly, status effects are very rare with non-rival goods. Most DS's have the opposite qualities, due to network externalities, such as the connectivity-effect and the sociality premium.

Non-rival niche

Here, a special-purpose DS is either contracted in advance, or else aimed at a niche market for non-rival goods. A good example of this strategy is found in the MP3 player produced by Real Audio corporation (RA) in the U.S.A. and sold to firms in the broadcasting industry. The business model is as follows: (a) RA supplies a Digital Encoder system (software) to a Broadcaster (B), for a price paid by B. (b) B now makes digital recordings of its own broadcast music, which reside on B's hard disk. (c) Listeners (radio audience) access the RA website and dowload the de-coder for free onto their (the listeners') hard disks. (d) Listeners access B's website to download the previously broadcast and now-encoded program of their choice, so they can listen to it anytime (or anywhere if equipped with a mobile phone and PC).

Listeners can keep copies of the broadcast and even give it away to others. The return on investment comes to B via the increased share of mind, or audience penetration, leading to increased revenue from advertisers purchasing slots in B's broadcasts. This business system doesn't rely upon copyright. The encoder is held securely by RA (a trade secret) and B has a competitive incentive not to give it away to another broadcaster. There is

no particular need to copyright the de-coder, because RA and B both want ubiquity.

Disruption

Another generic strategy for profit without copyright relies upon the dynamics of hypercompetition. In a hypercompetitive market (e.g. D'Aveni, 1994), players can only make profit by sustaining a momentum of varied strategic moves over time, including moves that disrupt the market. The latter include large price cuts, reverse takeovers to gain access to cash, or cannibalization of existing offerings. Thus, seeking CR or patent protection is seen as one way amongst many of protecting a firm's market stronghold. Alternatives include seeking out new product-markets (see "rival complements" below), or cannibalization of existing offerings. For example, a DS such as a software package can be repeatedly and rapidly cannibalized by introduction of updated versions. At any one time, several generations can be prepared for timely launch.

With this strategy, significant revenues flow in from the early adopters of a DS. By the time any shadow ("pirate") operation is established, the demand for the relevant DS has fallen away and the marketing effort of the original producer is redirected towards the next version. Meanwhile, the original producer also has (a) a first mover advantage and (b) a competency-based advantage, with respect to the design and rollout of a whole host of possible complementary goods and services, for each generation of the DS.

5. Rival-complements

This strategy, of profiting from goods and services that complement the produced DS, or that are informed by it (e.g. a CD fixation of a song) might become a standard model for business in the future. It is especially significant with respect to rival-good complements of non-rival products. With the generic strategy of rival-complements, a DS producer must arrange to capture revenues and profits from rival-good complements to a produced DS. These are material goods and services that add value to the produced DS. The rival goods exist in real-space (or meat-space, as it is sometimes revealingly called), rather than cyberspace. The financial incentive for the original production of innovative DSs now comes from the prospect of revenues and profits from these rival good complements. Profits can be expected, because the original producer of the DS has at least two competitive advantages, as mentioned earlier: a unique early-mover advantage, and a distinctive competence in the form of a complete understanding of the DS/work. There are several related variants of this strategy, as follows.

In-formation

Here, a design (description, picture, program) is sold, under some prior contractual arrangement, to an industrial customer who incorporates it into the production of material (rival) goods, such as cars. For example, the DS might be a set of instructions for a particular robotic production line. Here, the DS simply "in-forms" a material product, but the revenue is ultimately captured for the whole system when someone pays for the car, which is a rival good. Apart from this last feature, the strategy is otherwise similar to the Real Audio example, described earlier.

Pre-emption

Producers of DSs and their fixations (like CDs, microchips, pharmaceuticals) can only price the fixated DSs in the usual way, at far above the marginal cost of production (almost zero), for a limited time. They can sell at the high price only to the early adopters of the DS, since it is soon copied, or reverse engineered, and even posted to a website (although it may be possible to retard these events, technically). However, the original producer entity has a unique advantage, in being able to foresee and plan all manner of pre-emptive moves in the market for complementary goods and services, such as user-support, books and manuals, toys, health products and services, etc. To exploit this advantage, the DS producer must either (a) contract or form an alliance with producers of the planned rival goods, who have the necessary capability, or (b) develop internally the ability to serve this market (with similar ones in future). A variant of this "pre-emption" strategy is where a DS producer distributes the DS as shareware, simply posting it on a website, for free, rather than

attempting to extracting revenue from the early adopter segment of the market. In this case, the posting simply serves as an announcement that battle has commenced (in "meat space").

Services

In the case of complementary services (rival goods) the previous strategy has been made quite famous by the open source software movement. *The Economist* (1999) reported that *Linux* (an operating system) and Send *mail* (an email administering program) were each produced by voluntary collaboration, but that companies quickly emerged to sell related services and other support materials.

Any enterprising novelist can attempt a similar strategy. First the novelist (DS producer) earns a reputation for an ability to produce works with market appeal, simply by posting a manuscript on the web, as many have already done. Then, the novelist sells information (a form of trade secret) about the next planned novel, to interested producers of rival complements, such as games, toys, movies, but especially traditional books. Meanwhile, any book publisher can select any posted MS for re-production as a beautiful bound version, a fixation, to be sold at a price and distributed in real space, perhaps in alliance with distributors such as *UPS* or *Federal Express*. This arrangement, which functions in the absence of copyright, might serve the traditional book publishing industry very well. At the same time, consumers would have access to a huge variety of works, in numerous formats, whilst authors, the producers of the original DS, can benefit indirectly from increased reputation and share of mind. The traditional retainer fee arrangement might still apply.

Piggy-backing

In a world without copyright, the "open source" type of arrangement might also work in reverse. Using the technology of digital multimedia new DSs can be composed that piggy-back, so to speak, on existing rival goods. Suppose, for example, that someone produces a digital collage based upon an image of a *Barbie* Doll and calls it, well, "Barbie" (see the comment below about trademarks). In the absence of copyright, they cannot capture revenues from more than a few copies of the work; but it can be quickly made ubiquitous on the web. The producers of the "meat space" Barbie, far from demanding a slice of the action (there isn't much), might consider paying this image (DS) producer to do further similar works in future. The DS producer earns a retainer fee based upon reputation, whilst the producer of the rival-good material Barbie benefits from the increased share of mind occupied by the Barbie image, as well as possible reduction in other advertising expenditures.

Trade marks, moral rights

Despite the availability of strategies such as these, in a future world without copyright, moral rights of identification (of author/producer) remain very important. This includes trade marks, with their misrepresentation or dilution, thereby covering the case of an ugly "Barbie". The essence of these rights is individual and corporate identities (i.e. expressive forms of rationality) rather than utility and profit, or instrumental rationality (e.g. Singer, 1994, 1996b). Their preservation of identity and authenticity in world without copyright is something that many socialists, as well as capitalists, can be very comfortable with.

6. Policy

During the developmental phase of the open source movement, investment funds were reportedly denied, because there was a refusal "to make the programs a proprietary piece of commercial property". However, the subsequent sale of rival-good complement services, investors "finally saw a way to make money" (*The Economist*, 1999). This episode might have implications far beyond the immediate context. In future, capitalism might function well, even in the complete absence of any copyright of digital sequences. A slight change of mindset, or metal-model is all that is needed, coupled to some canny strategic thinking by producers. In addition, this episode (like the human genome mapping) also points to the benefits of recognizing a diversity of motives for innovation, coupled with moderation of greed. Given the variety of for-profit business strategies using the

internet, it is no longer quite credible to argue that copyright law is necessary in order to "ensure the variety and dissemination of works". Rather, producers and citizen/consumers can increasingly find common interests, in making produced DS's "free-ubiquitous-now" (e.g. Kelly, 1999).

A world without copyright satisfies several fundamental political intuitions, especially those of the Libertarian variety. The availability of for-profit strategies can enable states to get off the backs of citizen/consumers, with regard to copyright matters (why imprison people for copying useful information that is not a state secret?), whilst also freeing governments themselves (and lawyers) from the tedious business of trying to "harmonize" and enforce comprehensive IPR regimes. More significantly, the principle of enabling all people to access all the information (explicit knowledge) that they are possibly capable of making use of, or enjoying, is very similar in spirit to John Locke's earlier (Libertarian) theories of property rights over land. Finally, in the absence of copyright, there is far less need for the surveillance apparatus (cybercops, cookies, etc.) that can invade personal privacy, in order to protect corporate interests. The latter are ironically evocative of Jeremy Bentham's *Panopticon*, an early warning of the loss of freedom associated with excessive surveillance by states.

In sum, abandonment of copyright and relaxation of related IPRs can now contribute to a far more democratic political climate. Yet policy on IPR has never been prominently at stake in any democratic election campaign, nor referendum (in the sense that tax policy almost always is). Nor have consumer/citizen groups had much involvement in the shaping of IPR law and policy, to date.

Distributive justice

IPR law also has serious social consequences, not only for privacy, poverty alleviation and saving lives, but also for wealth distribution and distributive justice. For example, relaxation or abandonment of IPR can (i) make it much harder for a DS producers to gain market power and monopoly, (ii) transform winner-take-all markets into more level playing fields that are still sophisticated and rewarding, (iii) foster artisan networks and related productive activity, in less-developed regions and (iv) ensure that employees are not alienated, by having their creative works become the exclusive property of the corporation (e.g. Calton, 1999).

With regard to distributive justice, IPR policy is in many ways more like tax policy than like the antitrust policy with which it is sometimes associated. It not only has re-distributive effects, but it is also (unlike antitrust) a quite prominent part of the social fabric of contemporary life. Put differently, IPR policy has distinctive effects on the formation of social and human capital, that can be considered apart from economic effects (Singer, 1999a, b; Sen, 1999).

Common sense

Finally, abandoning copyright of digital sequences has the obvious virtue of appealing to ordinary common sense. Even very young children have the cognitive capacity to distinguish between an act of theft that entails deprivation, versus an act of copying that amounts to sharing. A more sophisticated intelligence sees that one should use money to pay for scarce rival goods; whilst copies of DSs which cost nothing to produce can be free to whomever can make good use of them. Given that (i) many of the world's citizens obviously lack the ability to pay the high prices for DSs, made possible by IPR regimes, and that (ii) producers can still earn a profit by pursuing available strategies, why cause loss of utility and social exclusion by denying people those free copies? In an economy without copyright, money and prices can serve to ration scarce goods, while they can also indirectly provide incentives for innovation and production. In this way, we can start to see the outlines of a new synthesis of the traditional capitalist and socialist value priorities (e.g. Singer, 1999a, b). The proposed arrangements might have pleased several prominent political economists of the industrial age: not only Karl Marx and John Stuart Mill, but also Adam Smith and (especially) John Locke.

7. Ecology & human-goods

If DS producers learn to adopt combinations of the strategies outlined above, the result will be a vast

store of readily-accessible DSs, competing globally for attention, or share of mind. Copies of a DS are made according to its own merits or qualities (e.g. salience, usefulness, etc.) but without the intervention of any external (meta-system), in the form of copyright enforcement (or censorship). This "store" of digitalized knowledge can continue to develop and grow rapidly, not only as result of profitable activity in the commercial sector, but also from activity in the not-for-profit sector, such as that which lead to the posted human genome.

Within this system or "store" of explicit knowledge, replication of a DS occurs approximately according to its usefulness or utility, to all types of entity (producer, consumer, citizen). The store of knowledge then looks much more like an ecology (e.g. Axelrod, 1983; Dawkins, 1976; Bateson, 1972) than an economy. The produced DSs behave like biological genes: fixated patterns that replicate to an extent determined by their own qualities in relation to the other patterns, rather than in accordance with the dictates of a meta-system. Furthermore, as a result of interacting with other patterns (other minds and programs) DS's frequently change and remain within the "ecological" system.

Staying with this metaphor, one can envisage the possibility that a new material economy can now be built upon such an ecology of knowledge, in much the same way that an industrial economy was historically built upon a natural ecology of land, forests and biosystems. Intervention from the political meta-level (copyright and censorship) can then be likened to the activity of a farmer, a gardener, or a bio-engineer, who operates from a position of power or dominion over nature. Intervention is intended to make the system conform to a political will. These "gardening, farming and engineering" activities (the copyright system) can then, in turn, be depicted and described in at least two distinctive ways:

(i) as an *intrinsic part* of nature: the garden is part of a single grand evolutionary process that subsumes human minds (e.g. Bateson, 1979; Tarnas, 1994), or
(ii) as *transcending nature*, in some ultimately humanistic, moral or spiritual sense.

The former conceptual model is one of value free political intervention. DSs reproduce and power relations form amongst cognitive/productive entities, in ways that can be beneficial to some of the DSs or some of the producer-entities, but harmful to others, or else simply neutral. It all just happens, like a vast game. An unlucky role of the dice might well set in motion a process that culminates in widespread loss of individual human freedoms, or some form of "totalitarian corporatism" (e.g. Macpherson, 1985) but that's just hard luck (for most of humanity). The second conceptual model sees that human intervention can transcend natural forces and thereby capture the essence of being more fully human, or living a fully human life, in society. Here, moral questions of justice, avoidance of harm, freedom, and the saving of lives come to the fore.

Accordingly, in terms of the metaphor, all entities and states now confront a rather fundamental collective policy choice: to intervene in the nascent knowledge ecology in ways that are (i) value-free, reflecting an essentially biological/evolutionary view of humankind, with its power relations, or else (ii) deliberately promote humanistic, moral and spiritual values. The latter can also be expressed as an intention simply to co-produce a diversity of human goods, or multiple forms of capital, that can interact synergistically with each other (Zeleny, 1995; Singer, 1996a, b, 1999a, b; Sen, 1999) including not only utility, but also sociality, justice, dignity and freedom.

8. Conclusion

The exercise of property rights over the human genome, mentioned at the outset, might indeed have been a major blow to humanity; but it might also have been rather bad for the global economy. Attempts to map the remaining 22 genomes are not short of funds, despite the fact that the not for profit team got there first. Meanwhile, the rapid global diffusion of this new knowledge will surely create many further opportunities for development. In view of the several arguments set out in this paper, we might well now ask whether it is a major blow to humanity and the economy whenever any digital sequence becomes a piece of commercial property. Current forms of intervention in the nascent ecology of knowledge really do appear

to be substantially motivated by the greed of powerful elites, rather than any concern for global advancement, nor any transcendent moral ideal.

Accordingly, the time has come to seriously confront the extension of traditional IPR categories to cyberspace. As history suggests, businesses and "merchants" in general will be quite capable of looking after themselves, even if, in future, a cultivated ecology of knowledge is treated before the law as a free public good and a priceless common heritage.

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