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THE END OF COPYRIGHT HISTORY?

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ABSTRACT. The history of the copyright system appears to be approaching an end. A pressing question now is whether or not the particular manner of its passing will be one that proves seriously destructive for cultural vitality and the advancement of knowledge.

1. PROLOGUE

Protections for intangible property rights and their codification in copyright law – from its remote pre-history in the disruption of the public copyists' trade wrought by Gutenberg's technical achievements in devising a practical means of printing with cast moveable type – has been shaped more by the economics of "publishing" than by the economics of "authorship." The legal institutions of copyright as we know them are properly seen as consequences of "industrial policy" actions that responded mainly to the changing interests of printers and publishers, rather than as the resultants of enlightened and socially rational institutional design. In historical terms it is as misleading as it is incorrect in terms of economic analysis to present the modern system of copyright protections as a necessary social innovation that has been devised to protect *the creators* of information-goods from plagiarists, "free-riders" and "pirates." Economic incentives and material rewards for authorial efforts were not and are not central in this story, however much those aspects of the subject continue to fascinate economists and serve to rationalize the obtrusive conflict between legalized (intellectual property) monopolies and the reigning ideology of market competition.

This lecture briefly traces the interplay of systematic forces and contingent events in the co-evolutionary dynamics of technological and institutional structures that came to govern the printing and publishing industries of modern economies, and whose influence now extends to the entire domain of digital reproduction and distribution of text, images and sound in cyberspace. The story highlights three great "technological disruptions" and their sequelae in business organization and the political and legal regulation of publishing: first, the "moveable type revolution" of the mid-15th century; second, the "stereotype and lithographic revolution" of the early 18th century; and lastly, the "digital information technology revolution" of the late 20th century. The process that unfolded over this demi-millennium is distinctively evolutionary in character. In it one may see self-organized, cross-catalytic dynamics in the interplay of technological and institutional innovations, path dependence and punctuated equilibria in the chronology of development, and myriad unintended consequences – both good and bad. Beyond whatever intrinsic interest it may hold, the historical sketch offered in the following pages provides an analytical perspective that is useful in identifying both the elements of continuity and the

unprecedented features of the challenges that today call into question the survival of the copyright system, and upon which the latter part of this lecture will focus.

2. Past

Grants of *book privileges* that conferred monopoly rights to publishers within particular territories responded to the technological non-convexities in the new printing and book-selling trades, by regulating entry and destructive competition in particular product lines. This application of the medieval seigneurial practice of granting individual "privileges" and "patents" became increasing widespread in Europe from the end of the 15th century, and soon gave rise to systems of registration and to incumbent-producer interests. These, in turn, were found to provide political and religious authorities (especially where State and Church were one) with a potent instrument for the suppression of "unauthorized" publications. Guilds and publishing cartels cultivated rulers' appreciation of this functional role for their own material benefit during the 16th and 17th centuries.

Yet, through the forging of that connection, it happened eventually that the political dynamics of state-sanctioned monopolies, and the resistance they engendered in late 17th century England (to both the continuing abuses of monopoly grants and censorship by the Crown) brought about the inadvertent association of authorship with copyright. In 1695, the withdrawal of the monopoly enforcement powers enjoyed by the Stationers' Company of London (under the Licensing Act of 1662, the most recent in a century-long line of state censorship devices) created a "business crisis"; its resolution was a political and economic compromise that precipitated the first system of statutory copyright protections – under the Statute of Anne (1709). In Britain, however, unlike the situation on the Continent, judicial abandonment of the interpretation of copyrights as perpetual (common law) property rights did not follow immediately: the somewhat serendipitous opening of an epoch of comparatively short copyright protection (limited by the statute) was deferred until the two final decades of that century (after Beckett v. Donaldson, 1774).

From the early 19th century onwards, however, the development of copyright law responded to a second great disruption, ushered in by a succession of new printing technologies of which stereotype and lithography, augmented later in the century by electro-stereotype and photo-lithography were critically important. The most consequential economic and institutional effects were those entailed by the drastic lowering of the marginal costs of enlarging and temporally extending the duration of the "print run" of once-composed texts (and illustrative images, and musical scores). Ensuing adaptations in the strategies of book publishing greatly increased the private economic value of extending the duration of copyright protections – which began to be progressively lengthened by statute in Britain from that time onwards. The greater fixed costs of the high-speed presses, the introduction of which technically complemented the replacement of moveable type by stereotype, gave rise to the exploitation of the economies of mass-production and mass-distribution, transforming business strategies and market structures in both the book trade and the newspaper industries.

Similar dynamics played themselves out in other lines of business that reproduced and distributed "information" fixed in tangible media, whether in printed texts, in textile designs, in sheet music, and then in piano rolls and records. Each

was characterized by higher fixed costs and lower and falling marginal costs; and, correspondingly, each elicited new institutional innovations in both the reinforcement and the expanded application of copyright monopolies. The latter were meant by their proponents to modify the legal setting so as to create conditions for sustainable profitability in the newly emerging lines of business. But, alongside efforts to modify the legal structure, came demands for greater vigor on the part of authorities in enforcing legal protections of existing copyright statutes; indeed, "self-help" campaigns by publishers employing dubiously legal means to wage "war on the pirates" were not unknown among the means by which incumbent 'publishers' sought to stabilize their rents in the facing of new entrants who took advantages of the radically reduced unit costs of copying "protected" content.

3. Present

Yet, after two centuries of elaboration and extension, the very principles upon which modern copyright law appeared to rest are being severely distorted by the forces unleashed by a new clustering of disruptive technological innovations. The activities of 'printing,' 'publishing' and 'reading' have escaped their former confinements within the expansive 'Gutenberg Galaxy' described by Marshall McLuhan, and we are now fully embarked upon voyages in the Digital Domain of Cyberspace. But the interaction between new innovation in the spheres of technological and institutional design and practices appears to be accelerating in a self-reinforcing and potentially destructive dynamic. Breathtaking advances of digital information technologies and computer-mediated telecommunication networks have wrought another radical transformation of the technical means of generating and distributing data and information, and much besides. This, the third and most recent significant evolutionary discontinuity, has set in motion forces whose likely unintended outcomes all would spell "the end of copyright history." That is to say, we are approaching the effective demise of a statutory copyright regime that formerly had achieved a salutary balance between providing "security of industrial property" and protecting the functions of the public domain in data and information of all kinds – scientific, technical and cultural.

The threats posed to the public domain as the repository of a collectively held cultural heritage, and hence to the foundations of the "open science" mode of cumulatively generating novelty by the recombination of readily accessible information and knowledge, are unprecedented and more serious than is readily acknowledged in many government policy-making circles – and by some leaders and administrators of academic institutions. Three processes that are distinct but interconnected currently are driving events toward the demise of the copyright system. Because the differences in the nature of the paths leading toward that end imply the existence of an array of possible outcomes regarding the precise shape of the post-copyright future, it is important that they be more widely recognized while the option to exercise informed choice among them still remains open.

Firstly, it is evident that the defensive responses of some incumbent "publishers" to the disruptive impacts of the digital information technology revolution already has ignited a conflict whose further intensification may calling into question the very legitimacy of legally protecting property in copyright material. The threat posed to traditional business models in book and academic journal publishing has led some

leading firms to adopt an "après nous le deluge" strategy of pricing that is exhausting the budgets of university libraries. That, in turn, has energized a reactive "free and open access" movement promoting alternative, publicly and privately subsidized publishing ventures, and stimulated experimentation with alternative business models for scholarly publishing that make enforcement of copyrights less critical. Already there exist more than 1000 "open access" journals that include among their number increasingly radical departures from the conventional business model of profit maximizing subscription publications. The same impulse, ignited by the extension of the U.S. copyright term, has stimulated the development of devices to facilitate contracting out of the more stringent terms set by copyright statutes (e.g., the Creative Commons initiative).

Elsewhere on the contemporary scene, however, the search for a *modus vivendi* to resolve the tensions between the copyright law and conduct in the new world of IT is less and less in evidence. The spreading practice of file-sharing on the Internet has elicited an increasing aggressive campaign of "anti-piracy" counter-measures on the part of the major music, movie and video publishers. Vigorously pursued, this legal strategy would in the end make felons of a large part of the younger generation: vide the new legislation passed by the Italian parliament mandating up to 3 years of imprisonment for illegal copying and distribution of digital content in the form of music, videos and software. Proposed technical tactics in the "war against piracy" would go even farther. They contemplate a hi-tech recapitulation of the violent turn in the campaign against "pirate" publishers of photo-lithographed sheet music in early 20th century Britain – on this occasion launching "search and destroy" operations inside computers and wireless communication devices that are spyware would report to be harboring un-authorized copies of copyright protected files.

In his book *Free Culture*, Lawrence Lessig draws attention to the incipient intergenerational conflict over access to cultural material and its creative utilization in digital forms, a conflict that could intensify with the escalating "war on piracy" and ultimately precipitate the popular rejection of the legitimacy of the entire system of intellectual property in digitized content – music, video-images and text alike. Lamentable as this would be, technological victory over the "pirates" by the owners of digitized content could be even more destructive, especially were the means of achieving such a triumph to become more affordable in the process, and their wider deployment to acquire greater social legitimacy – so that their application would extend quite naturally into the domains of scientific and technical data and information.

Troubled by both the abuses of the intellectual property regime and the weakening of general respect for property rights that may be incited by further escalation on the part of its defenders, meliorists and moderates among legal scholars have begun to argue more seriously for an alternative in the substitution of a legal "liability" approach for the absolute "property rights" protection view approach that has become ascendant in the area of intellectual property law. In the hope of saving the principle of "fair trading" and continuing to provide reasonable protection for investments in production and distribution of creative works, they would replace the absolute monopoly rights conveyed by copyright with a system in which compensation would be awarded by the court for proven economic damages resulting from un-authorized copying. The emergence of this solution, while far from perfect,

would constitute a second way in which the statutory copyright regime would come to an end.

Thirdly, we face the prospect of a retreat into secrecy and private contracting – the de facto abandonment of reliance upon a socially constructed mode of production for intellectual property. The growing investments in developing and deploying new capabilities for protecting *possession* of information-goods by means of "self-help" technologies – including encryption, water-marking and automated payment mechanisms implemented by digital rights management (DRM) fused with "trusted systems" – may completely obviate the need to enter into the social bargain represented by the traditional copyright regime. Such developments will further reinforce the effect of the recent legislative innovations (in the EU member states and now accepted by the accession and would be accession states) that established *sui generis* legal protection of databases. Strengthening the ability of database owners to repeatedly renew exclusive rights to all database contents – including un-copyrightable materials that are impractical to regenerate and thus become objects of perpetual monopoly control. Data and information of all sorts thus can be locked up indefinitely, to be released to those with the means to obtain it under the restrictive terms of the sort of one-way, take-it-or-leave-it contracts that perfectly discriminating monopolists would be expected to construct.

4. Future?

The lattermost of the three dynamics is the one that at the moment appears to be unfolding most rapidly and the one whose implications for the future of the "open science" mode of scientific and technical enquiry are especially worrisome. Unless it is unexpectedly overtaken by the other two, or suspended by a deft redirection of public policy to restrain deployment of DRM technologies and amend existing database law, it promises a scenario in which copyright history reaches a thoroughly miserable end – not for the legal profession of course – but for cultural vitality and continued scientific progress.

An epoch of "intellectual capitalism" founded upon *absolute* property concepts and implemented by a regime of legally sanctioned "knowledge monopolies" that can be technologically prolonged indefinitely by the effective enforcement of private possession of data and information has not yet dawned, not quite. Will the current research push for more effective and affordable 'cyber-security' in the post-9/11 world combine with the desperation the recording and video recording industry associations to "defeat digital piracy" an place the means of implementing that vision in the hands of enthusiasts for the complete commodifying of all information, down to the byte level?

This prospect, however speculative, strikes me as being sufficiently worrisome to warrant a concerted effort to begin mapping out practical steps that could be taken in order to make a timely transition to a system of liability law remedies for anti-competitive ("unfair trading") practices in digital information-goods markets. As a denouement of the five centuries-long story that has been sketched here, that option surely is the culturally most benign "ending of copyright" among the three

that I can foresee, and it also is the one most likely to be conducive to the long-term course of scientific and technical advances upon which continuing growth of the so-called "knowledge-economy" will depend.

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