INTRODUCTION

LEGAL REGULATION OF NEW TECHNOLOGIES: REFLECTIONS ON LIBERTY, CONTROL, AND THE LIMITS OF LAW

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[T]he practical question, where to place the limit – how to make the fitting adjustment between individual independence and social control – is a subject on which nearly everything remains to be done. . . . Some rules of conduct . . . must be imposed, by law in the first place, and by opinion on many things which are not fit subjects for the operation of law. What these rules should be, is the principal question of human affairs; but . . . it is one of those which least progress has been made in resolving.¹

This issue of the *University of Illinois Journal of Law, Technology & Policy* publishes selected proceedings of the 2002 Chicago International IP Conference held on October 3-5, 2002. Presented by the University of Illinois College of Law, St. Peter’s College of Oxford University, and the University of Victoria Faculty of Law, sponsored by three intellectual property law firms (Bird & Bird of Great Britain, Brinks Hofer Gilson & Lione of the United States, and Smart & Biggar of Canada), and supported by a grant from Tellabs Foundation, the conference brought together leading jurists, academics, scientists, practitioners, and business persons from North America, Europe, and Asia to discuss the issues of “protection,” “privacy,” and “disclosure” as they relate to the legal regulation of new technologies.

The academic proceedings in Chicago were organized around three panels. The first panel, entitled “Anti-Circumvention Measures, License

Restrictions, and the Scope of IP Protection: Protection from Copying or Protection from Competition?,” addressed the impact of anti-circumvention measures and licensing restrictions on free speech, “fair use,” and competition. The second, entitled “Workplace Monitoring, Cyber-Snooping and Cookies: Creating Standards for Watching or Not Watching,” examined the implications for personal privacy of the expansion of electronic monitoring technologies. The third, entitled “Emerging Technologies and Their Relation to National Security: The Implications for Academic Freedom, Innovation, and Competitive Advantage,” examined the tensions between national security and intellectual freedom in the wake of the events of September 11. Professor John Podesta, former Chief of Staff to President Clinton, and Judge James F. Holderman, United States District Judge for the Northern District of Illinois, delivered keynote addresses.2

Given the conference’s focus on cutting-edge problems at the intersection of law and technology, it may seem strange to introduce this issue with the words of a long-dead Victorian philosopher. However, John Stuart Mill’s On Liberty – with its impassioned defense of individual freedom and its skeptical attitude to both governmental and societal regulation – remains, in many respects, a timely text for our digital age. Written in 1859, in the same year as Darwin’s Origin of Species and amidst England’s Industrial Revolution, Mill’s essay reminds us that we are not alone in confronting the profound implications of rapid scientific and technological change. Indeed, the themes addressed by Mill in On Liberty – most notably, the tension between regulation and freedom, the importance of the private sphere, the individual and societal benefits of open engagement with ideas, and the practical limits of law as a regulator of behavior – aptly highlight many of the themes addressed by the contributors to this issue.

I. ON LIBERTY

Published when Mill was in his early 50s, On Liberty aimed to identify “the nature and limits of the power which can be legitimately exercised by society over the individual.”3 Mill’s famous answer to this problem rested upon one “very simple principle,” which he believed should “govern absolutely the dealings of society with the individual in the way of compulsion and control.”4 According to Mill, “the only purpose for which power can be rightfully exercised over any member of

3. MILL, supra note 1, at 3.
4. Id. at 11.
a civilized community, against his will, is to prevent harm to others." 5 Put differently, the only human actions that should be considered proper candidates for regulation are those "calculated to produce evil to someone else" — so-called "other-regarding" actions. 6

At its heart, therefore, On Liberty is a work concerned with "the limits of the coercive power which the state and society may legitimately exercise over the individual." 7 This overarching theme remains relevant for our purposes here because, as the contributions to this issue reveal, decisions about how (or whether) to regulate new technologies frequently involve tensions between the interests of government and society, on the one hand, and the interests of individuals, on the other. 8 Several other themes taken up in On Liberty foreshadow ones addressed herein. Like Mill, who characterized the suppression of opinion as akin to "robbing the human race," several of the contributors voice concern that freedom of expression may be unduly restricted by various forms of regulation — by intellectual property laws, by governmental measures, by private contracts, or even by technological measures themselves. 9 Echoing Mill, who vigorously advocated "liberty of tastes and pursuits" and the freedom "of doing as we like," other contributors stress the need to protect the domain of personal privacy from various forms of electronic oversight. 10 Finally, like Mill — who believed that law might well be called upon to act in areas "which are not fit subjects for [its] operation" — several of the authors demonstrate the ways that "private ordering," rather than formal legal regulation, frequently governs the relationships between individuals and technologies. The contributors and Mill thus remind us that law ultimately has limits in its ability to control new technologies and the individuals who use them.


6. MILL, supra note 1, at 12 (emphasis added). On the distinction between "self-regarding" and "other-regarding" actions, see, for example, C.L. TEN, MILL ON LIBERTY 10-41 (1980).

7. See TEN, supra note 6, at 2. For a revisionist view that stresses Mill's authoritarianism, see JOSEPH HAMBURGER, JOHN STUART MILL ON LIBERTY AND CONTROL (1999).

8. For a suggestive collection of essays addressing this issue in the context of Internet regulation, see CRYPTO ANARCHY, CYBERSTATES, AND PIRATE UTOPIAS (Peter Ludlow ed., 2001).


10. MILL, supra note 1, at 77-96.
II. THEMES

The sophistication and intellectual breadth of the individuals who participated in the 2002 Chicago International IP Conference defy easy summary. The panelists who convened in Chicago included, among others, prominent jurists; internationally renowned experts in microbiology, encryption, and biometrics; noted academics in the fields of law and political science; and leading business persons in the areas of consumer electronics and "data mining."

As might be expected, discussion amongst the presenters and attendees ranged widely. Nonetheless, several recurring themes emerged. For example, the panel on "Anti-Circumvention Measures, License Restrictions, and the Scope of IP Protection: Protection from Copying or Protection from Competition?" provided an occasion for several of the panelists to argue that recent legal developments had unduly benefited copyright owners at the expense of individual users of content. In a paper that incisively examines European and American developments in the area of copyright law, Professor Haimo Schack contends that copyright owners, through their use of anti-circumvention measures and licensing restrictions, have secured "an all-encompassing perpetual paracopyright that considerably restricts the public domain."11 In a related vein, Professor Maureen O'Rourke demonstrates the ways that copyright owners have augmented their rights under federal copyright law by employing a range of judge-made, statutory, and contractual restrictions on both access and use.12 Addressing proposed amendments to Article 2 of the Uniform Commercial Code, Professor Peter Maggs likewise stresses how copyright holders have resorted to private contractual ordering to address their "unhappiness with the results produced by existing legislation."13 And, in an important paper demonstrating prodigious knowledge of Japanese public policy, recent American legislative developments, and the business models of the consumer electronics and digital content industries, Masanobu Katoh contrasts the "one-sided" nature of recent American legislative proposals seeking to favor copyright holders with what he considers to be the more "balanced" approach of Japanese lawmakers.14

The panel on "Workplace Monitoring, Cyber-Snooping and Cookies: Creating Standards for Watching or Not Watching" encouraged its participants to explore the relationship between novel electronic

11. Haimo Schack, Anti-Circumvention Measures and Restrictions in Licensing Contracts as Instruments for Preventing Competition and Fair Use, 2002 U. ILL. J.L. TECH. & POL'Y 321, 327 (internal citation omitted).
monitoring technologies and individual privacy. In a thorough overview of the international laws governing information privacy, Professor Colin Bennett describes the "plurality of actors" involved in this area, including national legislatures, the European Union, and various standards-setting bodies.\textsuperscript{15} Surveying recent developments in digital rights management ("DRM") systems, Professor Julie Cohen argues that "[o]nline copyright enforcement represents one of the greatest current threats to online privacy."\textsuperscript{16} And in a spirited reflection on the important issue of workplace privacy, Judge Alex Kozinski of the United States Court of Appeals for the Ninth Circuit provides a first-hand account of his experience in counteracting the efforts of certain "bureaucrats" who sought to engage in the electronic monitoring of federal judicial employees – an experience that he describes as "incredibly scary, distasteful, and wholly unnecessary."\textsuperscript{17}

Finally, the panel on "Emerging Technologies and Their Relation to National Security: The Implications for Academic Freedom, Innovation, and Competitive Advantage," and the thematically related keynote address by Professor Podesta, addressed the extent to which governmental measures in the wake of September 11 have threatened the open exchange of scientific information. In his provocative address, Professor Podesta argues that the Bush Administration's efforts to restrict the amount of information supplied on government-sponsored Web sites and furnished in response to requests under the Freedom of Information Act (FOIA) ultimately "serves to undermine, not enhance, national security" because such measures detract from governmental transparency, the open exchange of scientific information, and the nation's ability to detect vulnerabilities in its security.\textsuperscript{18} Quite simply, as Professor Nigel Boston asserts in his paper on biometrics, "systems must be fully tested for weaknesses to earn confidence."\textsuperscript{19} Addressing the specific case of microbiological research, Professor Abigail Salyers, Past-President of the American Society for Microbiology, contends that the federal government's "threatened censorship of scientific publications" and proposed restrictions on foreign scientists risk compromising a long-standing tradition in the United States of "free and open" scientific research.\textsuperscript{20} Indeed, as Professor Edward Felten reveals, intellectual property law can chill scientific expression in its earliest stages. Commenting on his personal experiences as a litigant, as a scholar in the


\textsuperscript{17} Judge Alex Kozinski, \textit{Pulling the Plug: My Stand Against Electronic Invasions of Workplace Privacy}, 2002 U. ILL. J.L. TECH. & POL'Y 407, 408.

\textsuperscript{18} Podesta, \textit{supra} note 2, at 329.


field of encryption, and as an advisor to graduate students, Professor Felten contends that the threat of litigation under the Digital Millenium Copyright Act (DMCA) not only "chills" the free exchange of scientific papers but, in a less visible manner, sometimes prevents scientific research from ever being conducted at all.21

III. REFLECTIONS

In his keynote address published in this volume, Judge Holderman, relying on his considerable experience in patent infringement cases, endorses a reform proposal designed to improve the resolution of patent cases currently coming before the federal district courts.22 His observations are particularly salient given the critical role played by the federal courts in resolving current debates about the legal regulation of new technologies.23 Nonetheless, despite the important role played by the courts, we must not overstate the "reach" of formal law. As scholars have demonstrated, certain dimensions of human interaction appear to be governed by more decentralized norms.24 Moreover, as Professors Cohen and Boston suggest, technology itself — what Professor Lawrence Lessig has styled "code" — can limit the freedom and privacy of individuals, whether in the form of software, computer chips, operating systems, or biometrics.25 In turn, certain forms of human activity — such as peer-to-peer file sharing — have proven to be rebellious subjects of regulation.

In short, although it is important to focus (as many of the contributors to this volume do) on ways to fashion the best system of legal regulation that we can, we must also recognize that extra-legal factors — private agreements, norms, and "code" — remain important regulators of human behavior. We are fortunate that such penetrating minds came together at the 2002 Chicago International IP Conference

21. See Edward W. Felten, The Digital Millenium Copyright Act and its Legacy: A View from the Trenches, 2002 U. ILL. J.L. TECH. & POL'Y 289, 293 (referring to "several computer security research papers that are being held from publication... because the researchers are talking with their lawyers" and expressing the view that "[t]he real damage occurs when people decide that they do not want to work in a particular area").
22. Holderman, supra note 2.
23. In recent months, federal courts have resolved a pair of important cases that were still pending when the contributors to this issue convened in October 2002. See Eldred v. Ashcroft, 123 S. Ct. 769 (2003) (denying constitutional challenge to federal act extending copyright protection); In re Verizon Internet Servs, Inc., Civ. No. 02-MS-0323, 2003 U.S. Dist. Court LEXIS 681 (D.D.C. Jan. 21, 2003) (requiring Internet Service Provider to respond to subpoena seeking information about alleged copyright infringer).
25. LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); Cohen, supra note 16; and Boston, supra note 19.
and in this issue to address the vexing question of how law should best resolve the novel challenges that face us. Yet we must also recognize, with Mill, that law has its limits. Accordingly, we must each accept the weighty individual responsibility to struggle with these important challenges ourselves.