

**THE INTERNET UPHEAVAL: RAISING QUESTIONS,
SEEKING ANSWERS IN COMMUNICATIONS POLICY**

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Industry experts did not expect much at the dawn of the Internet, but now it is “a cliché to say that ‘the Internet changes everything.’”¹ It is due precisely to this shift in societal expectations that events such as the annual Telecommunications Policy Research Conference (“TPRC”)² are necessary. TPRC is unique in that it embodies “both academic collaboration and the delivery of relevant policy analysis to government agencies, phenomena previously unknown in the communication world.”³ TPRC brings together experts from academia, industry, and government to consider the state of the telecommunications industry and the policy consequences thereof.

The Internet Upheaval is an edited volume comprised of sixteen papers presented at the 1999 conference. Unfortunately, the result is a mixed bag of research papers of varying quality and depth, touching upon legal and economic policy issues concerning the expansion and regulation of the Internet. The volume is divided into four sections, which this Book Note will address in turn: (1) “Internet Policy Issues” (p. 1); (2) “The Internet Changes Paradigms” (p. 71); (3) “The Internet, Competition, and Market Power” (p. 197); and (4) “Universal Service” (p. 307).

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1. *When Companies Connect*, THE ECONOMIST, June 26, 1999, at 19. “The Internet changes everything” is now a catch-phrase among Silicon Valley’s leadership elite. See Janet Komblum, *On-line Postage Sealed and Delivered*, USA TODAY, Aug. 10, 1999, at 1A (quoting John Payne, CEO of Stamps.com); *Programmer’s Playtime*, N.Y. TIMES, July 4, 1999, at C2 (quoting Mark Eppley, Chairman of Traveling Software, Inc.); *Software: Data Mining*, THE ECONOMIST, Mar. 20, 1999, at 68 (quoting Larry Ellison, CEO of Oracle).

2. For a description of the scope, purpose, and organization of TPRC, see pp. ix-xi.

3. Bruce M. Owen, *A Novel Conference: The Origins of TPRC*, in TELEPHONY, THE INTERNET, AND THE MEDIA 3, 8 (Jeffrey K. MacKie-Mason & David Waterman eds., 1998).

I. INTERNET POLICY ISSUES

"Internet Policy Issues" contains three chapters, each of which addresses a topic of current national policy significance: First Amendment protection of online content, Internet taxation, and online privacy. At a macro level, these chapters identify the salient issues of their respective policy debates. The arguments do not extend much beyond issue-identification, however, failing to form conclusions or provide recommendations. In their Introduction, the editors of *The Internet Upheaval* comment that these chapters "raise the questions and provide *some* of the data to help make the decisions for the future" (p. xviii) (emphasis added). The data provided are by no means exhaustive, and few conclusions if any are drawn. For the most part, this section of the book does not dare to go any further than naked research.

Chapter 1 addresses issues of state action doctrine with particular regard to First Amendment protection of online content. As the Supreme Court determined in *Gitlow v. New York*,⁴ the Fourteenth Amendment provides remedies against state infringement of First Amendment rights.⁵ This doctrine, however, "erects no shield against merely private conduct, however discriminatory or wrongful."⁶ It thus becomes crucial to determine when a private entity is acting on behalf of the state. The author traces the development of state action doctrine, paying particular attention to cases involving the restriction of speech by shopping malls (pp. 9–10), private news providers (pp. 10–15), and telephone companies (pp. 15–17). In her brief analysis, the author identifies the manner in which state action doctrine might apply to Internet providers based on analogies to these other media. This mode of analysis could prove useful, but the chapter concentrates too heavily on the development of state action doctrine and does not offer any conclusions regarding the doctrine's application to the Internet.

Chapters 2 and 3 consider online sales taxes⁷ and online privacy, respectively. Both chapters rely on empirical data to reach their results and provide a starting point for further research. Unfortunately, the data are limited and the external factors that need to be considered are many. Chapter 2 concludes that the imposition of sales tax on Internet

4. 268 U.S. 652 (1925).

5. *Id.* at 666.

6. *Shelley v. Kraemer*, 334 U.S. 1, 13 (1948).

7. The Internet Tax Freedom Act ("ITFA") imposes a three-year ban (ending on Oct. 21, 2001) on discriminatory taxes associated with Internet services. Pub. L. No. 105-277, §§ 1100–1104, 112 Stat. 2681–719 (1998). Even with the ITFA in place, however, online merchants are still liable for existing state sales taxes. See Ron N. Dreben & Johanna L. Werbach, *Top 10 Things to Consider in Developing an Electronic Commerce Web Site*, COMPUTER LAWYER, May 1999, at 17, 18.

purchases *might* reduce the number of online purchases by 24% (p. 40). While this conclusion is interesting, the author identifies a number of external factors that might provide alternative explanations for the correlation between tax rates and online buying. The empirical data used in Chapter 3 are similarly qualified. Although the authors conclude that “users are indeed concerned about privacy” (p. 66), they concede that their study is insufficient, *per se* and as applied: “Policy based solely on survey results is inadequate. People’s self-reported preferences often do not match their real world behavior Indeed, there were notable mismatches in these results” (p. 68). Further, privacy policy has evolved rapidly since this piece was written.⁸ Thus, despite the inherent value of empirical research and the diligent efforts of the authors, the marginal utility of these two studies is minimal.

II. THE INTERNET CHANGES PARADIGMS

“The Internet Changes Paradigms” consists of five chapters addressing the various ways in which the Internet has changed or may change traditional models. The first two chapters of this section consider how the Internet has affected and will affect traditional notions of distance and democracy; the subsequent three chapters consider the effects of rapid technological expansion on traditional economic models. Each of these chapters is presented well but suffer from inadequate conclusions and the inevitability of outdated information.

Chapter 4 is the highest quality piece in the collection, discussing the effects of the Internet on cities. The author utilizes commercial Internet usage data to assess regional concentrations of economic activity. His findings contradict the theory that the Internet will reduce the importance of urban areas — the “death of cities” — but support the “death of distance” theory that the Internet will empower remote cities. This study is persuasively written, well-supported, and remarkably conclusive.

Chapter 5 concisely states the plethora of problems associated with online voting but still manages to determine that the benefits of online voting outweigh the costs. This conclusion is reached, however, under the assumption that the primary costs — privacy and security — are

8. The recent codification of the Gramm-Leach-Bliley Act imposes substantial restrictions on financial institutions’ collection and usage of online users’ personal information. 15 U.S.C. §§ 6801–6809 (2000). In the consumer-advertising sphere, the FTC reached agreement with a number of online advertisers in 2000 regarding the usage of Web surfers’ personal information. See David Stout, *Government and Internet Ad Group Reach an Agreement on Data Gleaned from Web Surfers*, N.Y. TIMES, July 28, 2000, at C6.

minimized. In such a universe, the conclusion would obviously follow from the premises, but that universe does not yet exist.⁹ The author's conclusion is thus a non-sequitur, but the issues and concerns identified in the chapter are valid nonetheless.

Chapters 6 through 8 shift gears and address the Internet's effects on economic models. Chapter 6 explores a two-period model of investment to assess the dynamics of capital investments by telecommunications firms. Chapter 7 establishes a model of communications demand based on the elasticity of demand for bandwidth. The author of this chapter has accurately predicted that "[s]ervice providers who choose to focus on other attributes rather than chasing the accelerating growth in bandwidth are likely to be left in the rear-view mirrors of carriers who aggressively build capacity" (p. 160).¹⁰ Chapter 8 considers interconnection arrangements between core "backbone" ISPs and other ISPs, concluding that profits and efficiency can be maximized by limiting the number of core ISPs to a few large firms. Each of these models breeds interesting market analysis, but none is offered for its legal or policy ramifications.

III. THE INTERNET, COMPETITION, AND MARKET POWER

"The Internet, Competition, and Market Power" builds directly off Part II with four more chapters devoted to market changes resulting from the Internet. With highly publicized mergers such as AT&T/MediaOne and AOL/Time Warner topping the news, antitrust issues in media rise to the surface.¹¹ Chapter 9 provides evidence that antitrust issues are perhaps less of a worry than ever in the new economy. Using the Herfindahl-Hirschman Index ("HHI") as an indicator, the author shows that the HHI for the largest media companies rose to only 268.11 in 1997 from 205.89 in 1986 (pp. 214–25). Amongst the top four and top ten broadcasters, the HHI decreased (p. 212). These data indicate a wider dispersion of profits across broadcasters despite the recent major media

9. Experiments with online voting were carried out successfully in portions of California and Arizona as part of the 2000 general election, but experts warn that security issues cannot be solved adequately with current technology. *See, e.g.,* John Schwartz, *E-Voting: Its Day Has Not Come Just Yet*, N.Y. TIMES, Nov. 27, 2000, at C1.

10. The year 2000 saw the arrival of new conglomerates such as Verizon Communications, whose aggressive efforts to build capacity have been constrained only by government regulation. *See* Ivan Seidenberg, *Stop Blocking the Broadband Revolution*, WALLST. J., Mar. 1, 2001, at A22 (calling on the FCC to loosen regulations).

11. *See, e.g.,* AT&T, *MediaOne Clear Antitrust Hurdle, Agree to Divest Some Assets*, L.A. TIMES, May 26, 2000, at C6; Ariana Eunjung Cha & Christopher Stern, *2 Agencies Hovering over AOL Deal; FCC, FTC Getting Closer in Views of Time Warner Merger*, WASH. POST, Sept. 6, 2000, at E1; Johnnie L. Roberts & Amy DiLuna, *A Twisted Pair*, NEWSWEEK, Sept. 25, 2000, at 50.

mergers. Another well-written piece, this chapter is worthy of note, but surely HHI scores have changed since 1997 and deserves reconsideration.

As a discussion of open architecture, Chapter 10 is a fruitless endeavor. The author explains the marginal benefits of "Open Architecture Approaches to Innovation" (p. 231). These benefits include lower prices for consumers and higher revenues for sellers of both platforms and peripheral products, a paradoxical combination of effects realized by lowering prices across an industry. The author is forced to concede that "[i]n markets based on emerging platform technologies, however, voluntary coordination is unworkable" (p. 244). The only manner in which these coordination costs can be addressed is through industry-wide price-fixing, a practice that might fall under the antitrust provisions discussed in the previous chapter.

Chapter 11 proceeds to discuss the advanced services of ISPs. Based on statistics from 1998, this chapter is doomed from the beginning. One type of "advanced" service considered by the author is "frontier access," consisting of any ISP offering "any access faster than a T-1 line" (p. 260). In 1998, digital subscriber line ("DSL") service was practically unheard-of, but today, there are an estimated 2.5 million U.S. subscribers, with SBC, the nation's leading DSL provider, installing 3000 to 4000 lines per day.¹² This dramatic shift in the offerings of ISPs has changed what might today constitute an "advanced" service, rendering this chapter moot at best.

To conclude discussion of market changes due to the Internet, Chapter 12 explains a massive study, known as the "PEAK experiment," whereby academic institutions were offered varying levels of online subscription service to newspapers and journals. The chapter reflects only an initial assessment of the data collected, but indicates institutional tendencies to prefer generalized subscriptions — access to all available material at bulk rates — to traditional subscriptions — access to individual journals at variable subscription rates (pp. 300–01). While these findings are not surprising, the data may provide incentives to publishers to offer similar generalized subscriptions and realize greater revenues as a result.

IV. UNIVERSAL SERVICE

"Universal Service" is inconsistent with the volume's focus on the Internet. Nonetheless, Chapters 13 through 16 provide in-depth, insightful discussions of domestic and international policies aimed at

12. See Jade Boyd, *Business Could See DSL Rise in 2001*, INTERNETWEEK, Jan. 8, 2001, at 11.

providing universal telephone service. Chapter 13 argues that competitive pricing options, including flat-rate long-distance plans, can increase the efficiency of attempts to provide universal service to customers while simultaneously increasing consumer satisfaction. Chapter 14 considers the negative consequences of lower international tariffs on Jamaica's attempts to provide universal service. This chapter proceeds to offer policy solutions to mitigate this problem, recognizing the need to balance the goals of universal service (which requires cross-subsidies) and economic growth (which demands lower costs). Chapter 15 compares the universal service policies of the United States and the European Union, noting that despite a recent trend toward deregulation, the U.S. continues to resist rate rebalancing. This chapter then suggests that the U.S. government remove federal restrictions on rebalancing. Finally, Chapter 16 offers an empirical analysis indicating that low-income customers are less likely to benefit from the recently adopted universal service plan than under previous programs, adding fuel to the fiery debate over the best approach to universal service. Each of these chapters is a credit to TPRC, offering worthwhile policy solutions for universal service. Even so, Part IV as a whole does not belong in *The Internet Upheaval* by either title or design.

V. CONCLUSION

Disregarding the odd inclusion of a section on universal service policy, *The Internet Upheaval* provides a glimpse into the inner workings of the evolving Internet and its impact on society. The volume raises questions of policy and attempts to provide models to explain certain trends and phenomena. Despite these attempts, however, the authors are too tentative, providing few conclusions and even fewer hints of how to approach these issues in the future.

In sum, *The Internet Upheaval* is a collection of work whose time has passed. In 1999, the Internet and the Internet economy were in critical phases of their development, as arguably they still are, but the Internet has matured and the Internet economy has turned downward. Although many of the ideas presented in *The Internet Upheaval* continue to form the basis for today's policy debates, more comprehensive information has already supplanted that initial research. As a result, a body of research that would have been impressive in 1999 is relatively useless in 2001. Perhaps this is an inevitable side effect of an industry that changes faster than researchers can publish — another consequence of “the Internet upheaval.”