Consumers as Producers: The Personal Mainframe and the Law of Computing

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CONSUMERS AS PRODUCERS: 
THE PERSONAL MAINFRAME AND THE LAW OF COMPUTING

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This article continues my exploration of how computers and the Internet change the nature of consumer protection law.\(^1\) Since the 1960’s,

consumer protection law has been built on the contrast between large “producers” and small “consumers.” Today, instead, an ordinary consumer owns what can accurately be called a “personal mainframe” -- a home computer whose processing power matches an IBM mainframe from about ten years ago. Equipped with a personal mainframe -- an Information-Age factory -- ordinary “consumers” at home are increasingly also becoming “producers.”

The idea of “consumer-as-producer” is descriptively powerful. Leading legal commentators such as Yochai Benkler and Larry Lessig have emphasized the non-market nature of modern computing, stressing the shared actions of volunteers in blogs, wikis, and Open Source software. By recognizing the ways that ordinary individuals are also economic producers, this article describes major features of modern computing that have been minimized in these leading accounts. Part I describes the history of home computing as an economic activity, from the “personal productivity software” of the 1980s, through the proliferation of commercial web sites during the Internet bubble, into the Web 2.0 of today. Although Web 2.0 has often been characterized as voluntary and non-market, the discussion here shows that Web 2.0 can be understood in large measure as many-to-many E-Commerce.

Part II explores the implications of “consumers-as-producers” for consumer protection law. In economics and consumer protection, the terms “consumer” and “producer” are usually opposites. Nonetheless, these opposites increasingly merge for modern computing, as suggested by the term “personal mainframe.” The legal question is the extent to which consumers-as-producers should be treated as producers -- at what point

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2 Web searches reveal that there have been occasional mentions of the term “personal mainframe,” primarily as a marketing term for certain lines of mainframes. See, e.g., J. Madeleine Nash, Where the Action Is, TIME, Mar. 13, 1989, http://www.time.com/time/magazine/article/0,9171,957238-2,00.html. The only previous academic use appears to be in a different context, referring to the integration of mainframes, personal computers, and workstations to assist high-energy physicists. See David Aston, Stanford Linear Accelerator Center, Towards a Personal Mainframe (June 1987), available at http://www.slac.stanford.edu/cgi-wrap/getdoc/slac-pub-4345.pdf.

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very small producers should comply with consumer protection laws. Part II
develops a consistent method for deciding when and in what ways
consumer protection laws should apply to consumers-as-producers. In
doing so, it proposes specific legal outcomes for diverse regimes such as
consumer privacy legislation, advertising substantiation requirements, anti-
spam rules, and campaign finance rules as they apply to bloggers and other
new sources of political speech.

In our Web 2.0 world, where consumers often supply the content,
“producers” do not lose the traits that also make them “consumers.” Part
III looks at the extent to which consumers-as-producers should be treated
as consumers -- at what point consumer-style protections should apply to
individuals who are engaged at least somewhat in commercial activity. It
also explores how consumers-as-producers should be treated under
employment law, as home producers supply their labor in peer-to-peer
settings.

Part IV explores broader implications for our understanding of
modern computing and the law of cyberspace. Prominent cyberlaw
scholars including Yochai Benkler, Larry Lessig, and Niva Elkin-Koren
have all stressed the “creative” and “nonmarket” aspects of modern
computing. By especially examining the claims in Yochai Benkler’s
impressive book *The Wealth of Networks: How Social Production
Transforms Markets and Freedom*, Part IV shows how the market-based
approach of “consumers-as-producers” is an effective alternative
framework for understanding modern computing. In addition, even for
those inclined to accept the nonmarket description of computing,
“consumers-as-producers” is a highly useful complement to the nonmarket
approaches.

I. **HOME COMPUTING AND THE SHIFT TO CONSUMERS-AS-
PRODUCERS**

This Part examines the rise of market activity based on home
computing. Although some writers have emphasized the nonmarket aspects
of modern computing, a more accurate description would acknowledge the
pervasiveness and growth of economic production. This Part documents
four trends: home ownership of the “personal mainframe” as an
Information-Age factory; the large role of productivity software and other
commercial aspects in the evolution from the personal computer to Web
2.0; an understanding of Web 2.0 as many-to-many E-Commerce; and
shifts in the labor market due to home computing. This article sums up
these trends with the term “consumers as producers.”
A. The Personal Mainframe as Information-Age Factory

A laptop today is many times more powerful than the 1960’s mainframes that supported entire companies. In fact, today’s laptops by key measures are more powerful than popular mainframes from only 10 years ago. Ordinary individuals today thus own true Information-Age factories, adept at creating text, blogs, software, audio, photographs, video, and any other information product. Today’s home computers also routinely handle heavy-duty business functions, including accounting, tax, and database management. These Information-Age factories are linked to a global distribution network, the Internet, and have ready access to global sales channels, such as eBay.

For those inclined to look at the numbers, the footnotes set out a detailed comparison showing that today’s laptop has the processing power of an IBM mainframe from about ten years ago. A critic could fairly argue with

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The second common measurement showing greater processing power is the number of instructions a machine can evaluate, measured in millions of instructions per second (“MIPS”). This is not an exact measure of processing power, because different processors can do different amounts of processing per instruction (and because RAM is also determinative of performance). However, as with the LINPACK test, a MIPS comparison can illustrate the relative processing power of different machines. In 1997, the IBM ESA/390 mainframe ran at 450 MIPS. “The Evolution of IBM S/390” available at http://www-
the precise number, moving it up or down by a couple of years. The basic point, however, is clear. Armed with their personal mainframes, ordinary consumers today are equipped to be global producers.

B. Home Production, From PCs to the Web to Web 2.0

The concept of the “personal mainframe” epitomizes the extent to which a typical home user today controls substantial means of production - an Information-Age factory linked to a global distribution network. The history of home computing, however, can best be understood by describing three stages of expanding economic tools in the hands of home users -- the personal computer, the Web, and Web 2.0.

Milestones in the rise of the personal computer include the 1981 release of the IBM PC and Time Magazine’s announcement of the personal computer as “Person of the Year” for 1982. The combination of the personal and the economic was captured in the term “personal productivity software,” which was in general use by the mid-1980’s. The term notably applies to spreadsheet programs such as successive market leaders VisiCalc, Lotus 1-2-3, and Microsoft Excel. The word “personal” is used in both “personal productivity” and “personal computers,” and clearly applies to many home users. The word “productivity” of course shares the


There are two obvious objections to these comparisons, although neither undermines the key point. First, mainframes support multiple users simultaneously, while home computers typically do not. This difference does make a mainframe more useful in many settings than a home computer. The individual consumer, however, can generally only concentrate on one task at a time. For purposes of the home factory, there is little point to serving multiple users simultaneously. In computer terms, individual users are bad at parallel processing, even if the computer is capable of parallel processing. If two or more people are working from home, they are likely to share one computer or each be equipped with their own – a second, third, or nth factory, in the same house. Second, there are differences in mainframe processor and memory architecture. A mainframe processor is thus somewhat more productive than a PC processor of the same frequency, but not by orders of magnitude. In sum, the processing power of a current laptop compares favorably to an IBM mainframe from about ten years ago.

4 Wikipedia, “Personal Computer.”

5 Id.
same root as “production,” and emphasizes the commercial applications of a personal computer.

The combination of the personal and the economic is illustrated by a Financial Times story in 1983. In discussing the growth of personal productivity software, the article predicted that “the British market could start to follow the American pattern, where there has been far less of a division between home and business computers. As more powerful computers become less expensive and as people outgrow their first machines, they will move on to more difficult tasks such as word processing and home accounting.”

The second stage in the economics of home computing began with the opening of the Web to commercial activity in the early 1990’s. It is simplest to think of this period as the one-to-many Internet. Individuals and small businesses could now create their own web sites. Suddenly, anyone could put content on the Net, viewable from around the world. In the start-up phase of the commercial web, the actual level of business-to-consumer E-Commerce was quite low. In research for a 1998 book, the largest credible estimate I could find for business-to-consumer E-Commerce was $500 million for all of 1996.

Even the dial-up Internet was very effective, however, at making text available to a wide readership. A 1997 article in the New York Times examined the newsletter industry -- “armed with a few articles, a desktop publishing program and a mailing list, almost anyone can become a publisher.” The industry trade group estimated at that time that 40 percent of newsletter companies already owned Web sites.

The Internet bubble of the late 1990’s can be understood, in retrospect, as a furious effort to figure out what would succeed economically online. Many of the start-ups began in home offices or basements. Google famously began, and was incorporated from, the

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7 The Scientific and Advanced Technology Act of 1992, signed into law on October 23, 1992, “subtly modified [the National Science Foundation’s] authority to support computer networks that are not limited to research and education.” National Science Foundation, Office of Inspector General, Review of NSFNET, March 23, 1993 (citing 42 U.S.C. § 1862(g)). This change was one important legal step toward development of commercial activity over what is now called the Internet.
8 Swire & Litan, p. 84.
Wojcicki family garage in Silicon Valley.\textsuperscript{10} Barriers to entry fell as start-ups could rely on powerful personal computers and affordable access to the Internet.

We are now in the start-up phase of what many call Web 2.0. The term “Web 2.0” was coined in 2004, and has been used in a variety of ways.\textsuperscript{11} Some writers use the term as marketing hype, to herald a second wave of dot.com companies that might rival the bubble of the late 1990’s. A more helpful use of the term, in my view, is to focus on the activity of consumers or users. Web version 1.0 was Web-as-information source. Web 2.0 builds on the participation of many users, or the many-to-many Internet.\textsuperscript{12} Commonly-cited examples of Web 2.0 activities are blogs, social networking sites such as MySpace or the Facebook, wikis (such as Wikipedia), and sharing and social tagging services such as Flickr.\textsuperscript{13}

C. Web 2.0 as Many-to-Many E-Commerce

Most legal writing to date about Web 2.0 has focused on the cultural and copyright issues that arise from consumer-created content.\textsuperscript{14} This paper will highlight the extent to which these Web 2.0 innovations already have, and will increasingly have, a major commercial component. In particular, the growth of the many-to-many Internet is accompanied by newly effective structures for many-to-many online commerce.

Four examples drive home the point how much easier it has become for ordinary individuals to sell online from home. First, the payment system has become far simpler. Despite early excitement about revolutionary e-payment systems, credit cards won the initial battle for

\begin{itemize}
\item \textsuperscript{10} http://www.forbes.com/facesinthenews/2006/10/02/google-page-garage-face-
x_po_1002autofacescan01.html.
\item \textsuperscript{12} The terms “participatory Web” and “Web-as-information-source” are attributed to Bart Decrem. Id.
\item \textsuperscript{13} A detailed typology of user-created content is contained in a major report by the OECD. Organization of Economic Co-operation and Development, Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, Participative Web: User-Created Content 15-16 (Apr. 12, 2007), available at http://www.oecd.org/dataoecd/57/14/38393115.pdf.
\item \textsuperscript{14} See infra text accompany notes (discussing Benkler and other cyberlaw writings).
\end{itemize}
purchases from online merchants. Credit cards worked well for the one-to-many Internet of the late 1990s, where an established merchant could sell to consumers. Home users, though, found it difficult to accept credit card payments. The next step was the success of PayPal, which makes it simple for individuals to send or receive money over the Internet. The PayPal product was launched in late 1999, and the company was purchased by eBay in 2002. By the end of 2005, PayPal had approximately 96 million total accounts, split between 19 million business accounts and 77 million personal accounts.

The second example is eBay itself. As I have discussed in detail elsewhere, eBay developed multiple legal and other mechanisms for reinforcing trust in online transactions between sellers and buyers. These mechanisms are also structured to avoid the jurisdictional and other tricky legal issues that had initially discouraged E-Commerce. By solving trust and legal problems, eBay has become a platform for an enormous array of commercial activity by ordinary individuals, often working from home. Today, it is reported that over 700,000 people derive their principal source of income from eBay sales.

Third, online retailers such as Amazon have given new effect to the idea that anyone can be a publisher. In the offline world, would-be authors would rarely be able to get their books sold in established bookstores. Today on Amazon, the new author (or used-book seller or used-merchandise seller) simply clicks “Sell Your Stuff” from the Amazon home page. The new author is then listed on Amazon, and gets to piggyback on the site’s shipping and order fulfillment infrastructure.

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15 Swire, Trustwrap, at 850-53 (analyzing victory of credit cards over other online payment systems).
18 Swire, Trustwrap, at 855-57.
19 Swire, Elephants and Mice Revisited: Law and Choice of Law on the Internet, (describing ways that eBay and other online transactions are structured to avoid jurisdiction and choice-of-law disputes).
The fourth example is what has been called the “democratization of advertising.” For television and other video, the personal mainframe greatly reduces the barriers to producing professional-looking ads. The proliferation of television stations -- from the three networks of the 1960s to the hundreds of stations in today’s home package -- also opens opportunities for more producers to buy ads.

On the Internet the democratization of advertising is proceeding much further. Google and other search engines are helping both sellers and buyers benefit from “the long tail of search” -- the highly specific search terms that match an interested buyer with a niche seller. Home producers, for instance, can use Google AdWords to buy ads that link to specific search terms. Home producers can use Google AdSense to sell advertising space on their blogs or web pages. Home producers can thus promote their goods to a global market, and realize profits from the traffic at their own sites, all for prices that compare to the traditional classified ad but reach a much larger and more-targeted audience. The barriers to entry for home businesses plummet as small advertising campaigns become affordable and small revenue streams become easy to generate.

D. Labor Markets and Home Computing

As home users sell goods and services through the Internet, they are also supplying their labor. A vivid example comes from the book “Wikinomics” by Don Tapscott and Anthony D. Williams. A gold mining company put its geological records up on the Internet, and offered $575,000 in prize money for those who pointed them to a profitable

21 Although I don’t know who gets credit for coining the term “the democratization of advertising,” the term seems to be used most often in connection with Google. See, e.g., Steve Rosenbaum, Ad Musings from the Googleplex, (May 22, 2007) (discussing Google and democratization of advertising), available at http://www.imediaconnection.com/content/14975.asp.


24 Id.

mineral deposit. As an example of the “wisdom of crowds,” the online community came up with numerous previously undiscovered gold deposits, at a large profit to the company. The book shows ways a company can profit by paying dispersed individuals to provide insights that benefit the company. The book concludes: “Indeed, one of the big developments in the next decade entails a shift from voluntary and nonmonetary participation in peer-to-peer communities to a model where participants directly monetize their contributions.”

Going forward, more kinds of home computing will be monetized, as individuals seek a price above zero for the supply of their labor. Some examples are already visible. A law professor such as Glenn Reynolds can begin a blog as a sideline, have it become popular, and then have its value publicly assessed at $35.1 million. Amateur musicians participate in MySpace and other social networking sites, hoping to develop a fan base and begin making money. Coders write Open-Source software in their spare time, and parley their reputation into consulting or other jobs. People begin trading on eBay at night or on weekends, find a profitable niche, and eventually have eBay sales become their principal source of income.

In some respects, there is nothing new about the way that a person’s hobbies might grow into a person’s livelihood. What is different, I suggest, is that individuals are now equipped with a personal mainframe, and have the global distribution system of the Internet at their disposal. In a Web 2.0 world, the line between “leisure” and “work” becomes blurred. Individuals provide content to Web 2.0 sites. They move back-and-forth along a continuum among occasional contributor, hobbyist, side-line, and full-time business. Increasingly, they will do what they love and the money will follow.

E. The Rise of Consumers-as-Producers

26 Wikinomics, at 7-10.
28 Id. at 265.
29 “$35.1 million for InstaPundit.com” Global Perspective, Nov. 6, 2006, available at http://www.theglobalperspective.biz/my_weblog/2006/11/351_million_for.html. The reader should not assume even the tiniest drop of envy, but only admiration, for the author’s law school classmate and former colleague Professor Reynolds.
30 The text echoes the title of MARSHA SINETAR, DO WHAT YOU LOVE, THE MONEY WILL FOLLOW (1989). The idea here is that improved home computing technology lowers the barriers to entry, so more hobbyists are able to make money from their interest.
The term “consumers-as-producers” pulls together these trends of the personal mainframe, personal productivity software and other home computing tools, the ways that Web 2.0 facilitates many-to-many E-Commerce, and the shifts in the labor market toward home production. The idea is that “consumers” are increasingly becoming “producers” as they generate some or all of their income by means of their computing from home.\footnote{The related term “prosumer” has been used in \textit{ALVIN TOFFLER, THE THIRD WAVE} (1980) and in \textit{DON TAPSCOTT \& ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGES EVERYTHING} (2006). Especially in the latter book, the term refers to ways that producers incorporate consumers into their production processes, such as for self-serve gas stations or self-checkout at a supermarket. The emphasis of the analysis of “consumers-as-producers,” by contrast, is on ways that individuals, often working at home, produce information goods on their own, and not primarily as part of the value chain of a large corporation.}

In economics, the terms “consumer” and “producer” are usually opposites. Yet, as seen in our survey of modern computing, these opposites increasingly merge. Part II of this article will explore the implications of this merger for consumer protection law, which is linguistically and conceptually founded on the dichotomy between consumers and producers. Part III will look at the implications for consumers-as-producers as they act as purchasers or employees, yet still retain the traits of a small consumer. Part IV will explore implications for broader themes about modern computing and the law of cyberspace.

II. THE EFFECT OF “CONSUMERS-AS-PRODUCERS” ON CONSUMER PROTECTION LAW

This part looks at the historical and current definition of “consumers” in consumer protection law, and examines the reasons that justify distinctive treatment for consumers. It then examines a number of regulatory regimes to develop a general approach for when consumers-as-producers should be expected to comply with consumer protection law. It concludes with discussion of how consumers-as-producers today differ from the home producers of earlier eras, thus justifying different legal treatment.

A. “Consumers” in Consumer Protection Law
1. THE HISTORY OF LARGE PRODUCERS AND SMALL CONSUMERS

Modern consumer protection law is founded on the assumption of large producers and small consumers. As consumer protection law emerged in the 1960’s and 1970’s, the paradigm was to address harms caused by large, professionalized producers. Ralph Nader exposed safety flaws of the Big Three automobile manufacturers in his 1965 book, *Unsafe at Any Speed*.\(^{32}\) Contracts scholars focused on the problem of “contracts of adhesion,” criticizing large producers who drafted standardized contracts that imposed unfair terms on consumers.\(^{33}\)

It is beyond the scope of this article to analyze the pre-1960 history of the relationship between consumers and producers.\(^{34}\) It is clear that earlier laws often simultaneously addressed both interests. Three examples give a sense of how the issues were sometimes linked. First, the Sherman Antitrust Act and Interstate Commerce Act of 1890 were passed in part to help family farmers (as producers of grain) who were paying high railroad prices (as consumers of shipping services) to get their goods to market.\(^{35}\) Second, the muckraker Sinclair Lewis sought to expose poor working conditions in the meat processing industry, but his revelations instead helped prompt changes in consumer law, such as pure food requirements.\(^{36}\) Third, a review of early issues of Consumers Union magazine from the

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\(^{32}\) *Ralph Nader, Unsafe at Any Speed: The Designed-In Dangers of the American Automobile* (1965).


1930’s shows a combined interest in reviewing products purchased by consumers and in pressing for better conditions for workers/producers.  

Modern consumer protection law, dating from the Nader revolution of the 1960’s, has focused primarily on the consumer but much less on issues affecting producers. The small consumer is protected against harm caused by the large producer, which is often subject to regulatory requirements. At the federal level, some examples enacted since the 1960’s include the Truth in Lending Act of 1969 (“TILA”), the Fair Credit Reporting Act of 1970, the Magnuson-Moss Federal Warranty Act of 1975, and the 1976 “Holder Rule” of the Federal Trade Commission.

States have filled in with a multitude of analogous consumer protections. Based on Professor Gregory Travalio’s treatise on Ohio consumer law, one state’s list includes: the Home Solicitation Sales Act, the Prepaid Entertainment Contract Act, the Ohio Odometer Rollback and Disclosure Act, the Ohio Retail Installment Sales Act, limits on payday loans, the Ohio Equal Credit Opportunity Act, the Ohio Lease-Purchase Agreements Act, and the Ohio “Lemon” Law.

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37 The first issue of Consumers Union specifically rejected the view that “your job is to help consumers, not workers,” and added “by and large the consumer and the worker are the same person, a person who must carefully guard his interests both as wage earner and as consumer.” Consumers Union, Vol 1, No.1, at 2-24 (1936).
41 Rule on the Preservation of Consumers’ Claims and Defenses, 16 C.F.R. § 433. This rule requires all sellers who receive consumer credit contracts include a notice to future holders of the contract that holders are subject to all of the claims and defenses the consumer could assert against the seller. For a witty, contemporaneous explanation of the rationale for the rule, see ARTHUR LEFF, SWINDLING AND SELLING xx (1976).
42 GREGORY M. TRAVALIO, ANDERSON’S OHIO CONSUMER LAW (2006 ed.).
43 OHIO REV. CODE ANN. § 1345.21-1345.28; see Travalio, supra note __, at ch. 4.
44 OHIO REV. CODE ANN. § 1345.41 et seq.; see Travalio, supra note __, at ch. 5.
45 OHIO REV. CODE ANN. § 4549.41 et seq.; see Travalio, supra note __, at ch. 6.
46 OHIO REV. CODE ANN. § 1317.01-1317.99; see Travalio, supra note __, at ch. 8.
47 OHIO REV. CODE ANN. § 1315.35-1315.44; see Travalio, supra note __, at ch. 11.
48 OHIO REV. CODE ANN. § 4112.021; see Travalio, supra note __, at §§ 12.26-12.30.
49 OHIO REV. CODE ANN. § 1351.01-1351.09; see Travalio, supra note __, at ch. 13.
These federal and state examples, by no means exhaustive, remind us of the many legal regimes where “producers” are especially regulated for transactions involving “consumers.” Business-to-business sales remain closer to the old world of freedom of contract. Business-to-consumers sales, however, take place under the many laws that embody the consumer protection revolution of the 1960’s.

The text of TILA illustrates the distinction between producers and consumers. The best-known requirement of TILA is likely showing the APR (annual percentage rate) as part of the disclosure for a loan. The Federal Reserve has explained the coverage of TILA:

In general, this regulation applies to each individual or business that offers or extends credit when four conditions are met: (i) the credit is offered or extended to consumers; (ii) the offer or extension is done regularly; (iii) the credit is subject to a finance charge or is payable in more than four installments; and (iv) the credit is primarily for personal, family, or household use.\(^5\)

On the producer side, TILA applies essentially where loans are “regularly” extended to consumers. If so, then full regulatory compliance is expected, including the APR notice. In defining a consumer transaction, the TILA language gives the usual, common-sense definition – personal or household use is protected under the statute, while “commercial” or “business” use is not.

The TILA example illustrates the distinction between the regulated producer, required to issue an APR notice, and the unregulated individual, who is seen as the consumer protected by the law. In a pre-personal-mainframe era, one can imagine scenarios where an ordinary individual might inadvertently be covered by TILA – consider a local philanthropist, for instance, who helps students from a high school with their college expenses. Is the philanthropist expected to issue an APR notice? Even in our current personal-mainframe era, I am not aware of an increase in individual-based lending, although once again scenarios come to mind. I have wondered whether multi-player online games have witnessed lending activity in the online currencies. Based on one standard research technique (asking my teenage sons), this sort of lending has apparently not yet been

\(^{50}\) Ohio Rev. Code Ann. §1345.71-1345.78.; see Travalio, supra note __, at ch. 18.

\(^{51}\) 12 C.F.R. § 226(1)(c).
built into any of the popular games. If it were, however, then I would recommend -- truly -- that regular lenders consider whether APR notices (setting forth the interest rate in World of Warcraft “gold,” for instance) are required by the text of the law.\footnote{This TILA issue is but one example of the recent explosion of legal scholarship about “virtual worlds” -- online games where many people can interact, play, and socialize. These virtual worlds have been fertile grounds for legal scholars to explore implications for topics such as: property rights, Greg Lastowka & Dan Hunter, The Laws of the Virtual Worlds, CAL. L. REV. (forthcoming, 2008), available at http://ssrn.com/abstract=402860; criminal law, Oren Kerr, Criminal Law in Virtual Worlds, U. CHI. L. FORUM (forthcoming, 2008), available at http://ssrn.com/abstract=1097392; taxation, Leandra Lederman, ‘Stranger Than Fiction’: Taxing Virtual Worlds, 82 N.Y.U. L. REV. 1620 (2007); and defamation, Bettina Chin, Regulating Your Second Life: Defamation in Virtual Worlds, 72 BROOK. L. REV. 1303 (2007).}

2. THE RATIONALE FOR SPECIAL “CONSUMER” LAWS

My colleague Larry Garvin has provided a persuasive modern rationale for the distinction in contract law between consumers and producers.\footnote{Larry T. Garvin, Small Business and the False Dichotomies of Contract Law, 40 WAKE FOREST L. REV. 295, 302-68 (2005).} Professor Garvin begins a bit playfully, with parodies: “A consumer might thus be described as a pitiful wretch, barely able to pull a crumpled wad of greenbacks from his pocket to pay for some meretricious product.”\footnote{Id. at 303.} The merchant, by contrast “would combine the less savory aspects of Commodore Vanderbilt, Kenneth Lay, and Ebenezer Scrooge.”\footnote{Id.}

Professor Garvin then lays out the state-of-the-art in economics and experimental psychology to show the rationale for special consumer protections. In brief, consumers first on average lack the financial resources of merchants. Whereas large merchants may have monopoly power, consumer buyers do not. Consumers are subject to liquidity crunches, and many consumer laws are designed to prevent exploitation at the moment when the consumer is temporarily out of cash.\footnote{Id. at 304-08.}

Second, consumers on average face difficulties in getting and dealing with information. Consumers face many information asymmetries, where the seller knows far more about the value of the good (think of the classic frauds in used cars). Merchants are repeat players in their specialized
niches, giving them numerous advantages, including in drafting contracts that subtly but significantly favor the seller.\textsuperscript{57}

Third, consumers are prone to certain cognitive difficulties. Here, Professor Garvin delves deep into the “behavioral law and economics” literature. He begins by observing: “After all, much of contracting is risk allocation, an area particularly prone to cognitive error.”\textsuperscript{58} He then explores some of the key sources of bias and error revealed by the recent economic and psychology literatures, such as: overoptimism and overconfidence; availability; cognitive dissonance; regret aversion; status-quo bias and endowment effect; and anchoring and adjustment.\textsuperscript{59} The interested reader can consult the full discussion. For our purposes, the conclusion is most important: “A good deal of consumer law may be explained … as an attempt to correct for consumer bias.”\textsuperscript{60}

Professor Garvin thus codifies the often-inchoate reasons that consumers are treated more protectively in the law than businesses. His analysis is grounded in the recent literature in economics and psychology. The next step is to notice the effects of changing technology. We now turn to consumer protection regimes where the personal mainframe indeed forces the resolution of new legal issues.

\textbf{B. When Should Consumers-as-Producers Have to Comply with Consumer Protection Laws?}

As unregulated consumers become regulated producers, a major legal question is whether and when the individual should have to comply with consumer protection laws. There are three logical possibilities:

1. Individuals should be regulated as producers.
2. Producers should no longer be regulated.
3. A threshold should be defined, below which small producers are not regulated.

The legal and analytic problem exists because both labels are essentially correct. The individual is now acting as a “producer.” As such the individual might now perpetrate the sort of harm that led to the consumer protection law in the first instance. For instance, individuals

\begin{itemize}
\item \textsuperscript{57} Id. at 308-13.
\item \textsuperscript{58} Id. at 314-15.
\item \textsuperscript{59} Id. at 315-24.
\item \textsuperscript{60} Id. at 324.
\end{itemize}
who sell goods might engage in fraud or deceptive practices. Perhaps consumer protection laws should thus apply in full measure to consumers-as-producers.

On the other hand, the individual is still a “consumer.” Simply by using personal mainframes to engage in some commercial activity, individuals do not become sophisticated, experienced, and able to avoid the cognitive biases described by Professor Garvin. Individuals also face potentially significant barriers to compliance with consumer protection laws. They often will not know what is required by law, and the scale of their commercial activity will not justify expensive legal counsel. Perhaps consumers-as-producers should thus be exempt from having to comply with consumer protection laws.

The discussion here selects four examples of legal rules that might apply to consumers-as-producers, with recommendations spanning the range of possibilities:

1. Consumer privacy legislation. I recommend creating a threshold, with no compliance required for databases of fewer than 5,000 names.

2. Advertising substantiation. Concerning the requirement that advertisers have a “reasonable basis” for their claims, I recommend applying current law to small advertisers.

3. Spam. Current law does not create a threshold for those who send a few commercial emails, but such a threshold is worth considering.

4. Political blogging. I agree with the Federal Election Commission decision to create a major exemption from campaign finance laws for online political advocacy, even for large blogs or websites.

The discussion here goes into a fair bit of detail about these four areas of law, and some readers may wish to go directly to the summary discussion at the end of the Part. The common theme among these recommendations is to describe the sort of harm that existing law seeks to reduce. The approach here next looks at how the use of personal mainframes affects creation of those harms. Where the sorts of harm are likely to be created by consumers-as-producers, the analysis tilts towards requiring compliance. Where the sorts of harms are unlikely to be caused by consumers-as-producers, then the case for an exception is stronger.

1. **Consumer Privacy Legislation**
Congress is beginning to pay more attention again to the topic of consumer privacy legislation, to apply to on-line commerce but also likely to off-line. I testified in a hearing on the subject in 2006, and major industry players have now called for a national law. A group of companies has specifically stated:

In principle, such legislation would address businesses collecting personal information from consumers in a transparent manner with appropriate notice; providing consumers with meaningful choice regarding the use and disclosure of that information; allowing consumers reasonable access to personal information they have provided; and protecting such information from misuse or unauthorized access. Because a national standard would preempt state laws, a robust framework is warranted.

I have written elsewhere about why I think such legislation was premature when proposed during the 1990’s, but why the case for legislation is considerably stronger today.

My support for legislation, however, has long been beset by a specific doubt. I have not known how to define the threshold for when such legislation might apply. The problem is illustrated by the example of my teen-age son, who made money one recent summer by cutting the lawns for perhaps eight neighbors. Suppose my son wanted to tell the neighbors’ names to a friend, who was planning to cut lawns the following summer. Should my son be required to have given prior written notice to each

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62 Id.
63 Id.
64 Peter P. Swire, "Trustwrap: The Importance of Legal Rules for E-Commerce and Internet Privacy", 54 Hastings L.J. 847, 859-71 (2003). In brief, self-regulation in the 1990’s speeded the adoption of good practices by most E-Commerce sites. The credible threat of legislation during that period pushed industry to make relatively rapid progress. Once the threat of legislation receded, however, the pace of improvement slowed. In addition, lessons learned from other privacy laws passed in the 1990’s now form a solid foundation for workable general privacy legislation.
family, with an opt-out box for neighbors who didn’t want their names shared? In the terms of this article, when my son acts as a “producer” – a lawn-cutting enterprise – should he have to comply with this consumer protection law?

From having discussed this example in various settings, the clear answer is no. One reason is that the degree of privacy harm is de minimis – the reasons supporting a privacy regime don’t apply well to this casual activity of neighbors. Another reason is political. If a U.S. privacy law purported to regulate the lawn-cutters and baby-sitters of America, it would never be enacted. If it were enacted, it would soon be repealed.

Nor is the solution under the European Union Data Protection Directive very attractive. The Directive does have an exemption for non-commercial activities “by a natural person in the course of a purely personal or household activity.” Cutting a lawn for money, however, is not “purely personal.” The teenager, based on the text of the law, is supposed to comply with the full set of data protection rules. The European response has been that officials would use discretion in enforcement. In this approach, the teenager can ignore the law, believing that no enforcement will occur.

As I have discussed before, however, this sort illegal-but-not-enforced approach is undesirable and a bad fit with American legal practice. Overbroad legislation, to the extent it generates compliance, leads to needless costs and burdens by the teenager and all others who should not

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65 I have explained previously reasons why the degree of privacy invasion is much greater for large databases than for the sorts of small, unaggregated “databases” that the teen-age lawn-cutter would create. Peter P. Swire, "Of Elephants, Mice, and Privacy: International Choice of Law and the Internet," 32 The International Lawyer 991 (1998).

66 An example of speedy repeal was a strict medical privacy law in Maine that prevented flowers from being delivered to patients in the hospital. The problem for florists was that they needed prior patient consent to learn the number of the hospital room, but the patients were usually receiving the flowers as a gift and so had not given prior consent. See Amy Goldstein, Long Reach into Patients’ Privacy: New Uses of Data Illustrate Potential Benefits, Hazards, WASH. POST, Aug. 23, 1999, at A1 (strict Maine medical privacy law repealed two weeks after taking effect).


69 Id.
be included. Overbroad legislation fails to provide clear notice of what is prohibited and creates the risk of arbitrary and discriminatory enforcement. American lawyers and companies are reluctant to break the law knowingly, given potentially significant legal sanctions if they do.  

70 In addition, a perception that legislation is unenforceable can make the law a dead letter. The achievable good purposes of legislation can be lost if the law purports to go too far.

A good answer has recently emerged, however. A small producer exception can apply based on the number of persons whose data is used by the producer. One proposal would be to exempt an entity that “collects, stores, uses or discloses personal information from fewer than 5,000 individuals” in a twelve-month period.  

71 For smaller collections of data, the benefits of privacy protection are outweighed by the burdens of compliance by the lawn-cutters of America. For larger collections of data, which usually are maintained in well-known software formats, compliance with the privacy requirements can be integrated with the software. For employment law, the small-producer exemption has long been based on the

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70 Id. Under the U.S. Sentencing Guidelines, an upward departure may be appropriate when a corporation has demonstrated a pattern of illegal conducts. U.S. SENTENCING GUIDELINES MANUAL § 8C2.8 cmt. n.5 (2005). Under Sarbanes-Oxley, there is heightened pressure for public companies to have accurate and lawful systems in place. See, e.g., 15 U.S.C. § 7241(a) (2006) (requiring corporate officers to personally certify financial reports based upon the officer’s own knowledge).


The 5,000-individual approach was suggested in connection with proposed federal legislation to require producers to notify consumers in the event of a data breach. The concerns about a threshold for data breach legislation are very similar to those for privacy legislation. For instance, if a friend loses a PDA, laptop, or other device holding contacts information, should that person be legally required to send you formal written notice of the loss? It may be polite to do so (if the friend has a kept a backup and so knows whom to contact). My own sense is that it would be over-broad to require individuals that have a modest number of business contacts to be covered by federal legislation. A data breach bill with a threshold of 10,000 individuals has been passed by the Senate Judiciary Committee. S. 495 § 301, 110th Cong. 1st Sess.
number of employees.\textsuperscript{72} When it comes to data about individuals, the exemption can be based on the number of individuals in the database.

2. \textbf{ADVERTISING BY SMALL PRODUCERS}

Various laws apply to producers when they advertise. To take two examples, consumer protection laws now impose rules on direct marketers who telephone, fax, or send e-mail to the home.\textsuperscript{73} Commercial advertisers are also subject to various anti-fraud rules, such as the requirement that they substantiate claims contained in their advertisements. The question for our purposes is the extent to which these advertising rules should apply to individuals as they shift into also becoming producers.

\textit{a. Advertising Substantiation}

Suppose a company makes a claim in a television advertisement: “Diapers by X keep a baby dryer than diapers made by Y.” Under longstanding law, the claim must be “substantiated” or else it will be considered a deceptive trade practice. What if the text of a blog says the same thing? The typical blogger does not do a careful empirical study before typing his or her opinion and sending it off to the blogosphere. Advertisements are now shifting from broadcast to narrowcast, increasing the number and range of advertisements. The cost of producing many types of advertisements also has plummeted, as personal mainframes bring non-embarrassing production values within the realm of the individual user. The question is how much of the regulatory overhead from the broadcast, large-scale production era should apply to consumers-as-producers.

\textsuperscript{72} Title VII of the Civil Rights Act defines “employer” as “a person engaged in an industry affecting commerce who has fifteen or more employees for each working day in each of twenty or more calendar weeks in the current or preceding calendar year, and any agent of such a person.” 42 U.S.C. § 2000e (2006). Similarly, the Age Discrimination in Employment Act sets the threshold at 20 employees. 29 U.S.C. § 630 (b) (2006).

\textsuperscript{73} The Do Not Call registry does not have an exception for small business. Telemarketing Sales Rule, 16 C.F.R. § 310.4 (b)(1)(iii)(B) (2006). The Junk Fax Prevention Act of 2005, 47 U.S.C. S. § 227(b)(2)(D)(iv)(II), authorized the FCC to create a small business exception. Based on its finding that compliance would not be burdensome for small businesses, the FCC declined to create such an exception. 71 Fed. Reg. 29,567, 29,577 (May 3, 2006).
The “FTC Policy Statement Regarding Advertising Substantiation” was issued in 1984 and remains in force today.\textsuperscript{74} The Statement announces the basic legal rule, “that advertisers and ad agencies have a reasonable basis for advertising claims before they are disseminated.”\textsuperscript{75} For those unfamiliar with advertising law, it may be surprising that the substantiation must exist in advance: “[A] firm’s failure to possess and rely upon a reasonable basis for objective claims constitutes an unfair and deceptive practice in violation of Section 5 of the Federal Trade Commission Act.”\textsuperscript{76} For claims made in an advertisement, “advertisers will not be allowed to create entirely new substantiation simply because their prior substantiation was inadequate.”\textsuperscript{77} I have not found previous discussion of the extent to which the substantiation requirement applies to consumer-produced content. The discussion here of substantiation law, moreover, illustrates the analysis that might apply to consumers-as-producers for other advertising laws, such as truth-in-labeling with respect to third-party endorsements,\textsuperscript{78} or guidance concerning word-of-mouth advertising.\textsuperscript{79}

The substantiation requirements have applied most clearly to advertisements produced on an industrial scale, especially national advertisements on television.\textsuperscript{80} The FTC has long recognized, however, that small businesses also advertise. Its guidance shows that even small businesses must comply with potentially significant requirements:

\textsuperscript{74} FTC Policy Statement Regarding Advertising Substantiation, available at \url{www.ftc.gov/bcp/guides/ad3subst.htm}.

\textsuperscript{75} Id.

\textsuperscript{76} Id., citing to 15 U.S.C. § 5.

\textsuperscript{77} Id.

\textsuperscript{78} Federal Trade Commission, Guides Concerning Use of Endorsements and Testimonials in Advertising, 16 C.F.R. Part 255.


Before a company runs an ad, it has to have a “reasonable basis” for the claims. A “reasonable basis” means objective evidence that supports a claim. At a minimum, an advertiser must have the level of evidence that it says it has. For example, the statement “Two out of three doctors recommend ABC Pain Reliever” must be supported by a reliable survey to that effect. If the ad isn’t specific, the FTC looks at several factors to determine what level of proof is necessary, including what experts in the field think is needed to support the claim. In most cases, ads that make health or safety claims must be supported by “competent and reliable scientific evidence” — tests, studies, or other scientific evidence that has been evaluated by people qualified to review it. In addition, any tests or studies must be conducted using methods that experts in the field accept as accurate.  

Advertising rules apply not only to small businesses but also to online businesses. The FTC has announced that “[t]he same consumer protection laws that apply to commercial activities in other media apply online.” The need for substantiation specifically applies online.

I tentatively believe that it makes sense to retain the substantiation and similar advertising rules for consumers-as-producers. Suppose the home-based web site advertises that “Studies show that our herbal home remedy dramatically improves your chances of surviving breast cancer.” This type of health claim has been a frequent target of false advertising enforcement. Although sophisticated readers of law reviews might not

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81 Id. at 5 (emphasis in the original)
fall for such a pitch, bitter experience shows that patients often pay large amounts in their desperate search for a cure.

We can generalize from the false health claim example. In speaking with experts who have litigated advertising cases, a consistent theme was that fraud often happens in one-on-one settings. Making an unsupported and deceptive claim, to even one consumer, can readily harm that consumer. The very basis for the regulation – protection against fraud – thus counsels for applying the regulation to individual instances of harm. Even a very small producer should likely be covered.

b. **CAN-SPAM**

Advertising also happens directly from one seller to one consumer. The problem of “spam” – unsolicited commercial email – has expanded as the Internet has expanded. In 2003, Congress passed the “CAN-SPAM” Act in an attempt to protect consumers from these unwanted emails. CAN-SPAM has been a colossal failure at achieving the goal of eliminating all unwanted email. I suggest, however, that the law has more-or-less succeeded at meeting a different goal – establishing basic standards for how an individual can stop receiving email from legitimate companies. The question here is the extent to which CAN-SPAM should also apply to consumers-as-producers.

For ordinary businesses, the main requirements of CAN-SPAM are that the business be easy to contact and that it stop sending commercial emails once the consumer asks. The email must include the physical postal address of the sender, and must have a functioning return email address or other Internet-based mechanism for contact by the consumer. The

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85 E.g., interview with Diana Bixler, former FTC attorney, Jan. 30, 2007.
86 One alternative would be to create an exception so that small businesses do not need to create studies or other prior substantiation. Under this approach, for small companies, there could be a “reasonable basis” for a claim if there is a good-faith belief in its truthfulness. Under such an approach, the intentional swindler could still be punished. The false claim about breast cancer, for instance, might be punished under a criminal fraud statute or under civil statutes if there is a reckless or intentional misstatement. This alternative would free the consumer-as-producer from the need to substantiate in advance the “reasonable basis” for the claim. The alternative approach, however, would create an enforcement challenge, because enforcement agencies would then have to prove a heightened mens rea in the case of an unsubstantiated advertisement.
88 CAN-SPAM, § 5.
contact information must stay valid for at least 30 days, so the consumer can readily opt-out of receiving future emails.\textsuperscript{89} The scope of coverage is traditional for consumer statutes, applying to “any electronic mail message the primary purpose of which is the commercial advertisement or promotion of a commercial product or service.”\textsuperscript{90} For the criminal fraud provision, there are some thresholds for greater penalties, based on the number of false email accounts and the number of fraudulent emails sent.\textsuperscript{91}

The spam problem today is really two quite distinct consumer protection problems. The first problem comes mostly from black-market rings of spam producers, mostly located outside of the United States. These spam rings constantly change their technology to evade anti-spam measures. I have learned, from working as an advisor to a company that sought to shut down these spam rings, that this black-market spam is created by organized crime groups that operate primarily overseas, including in Eastern Europe.\textsuperscript{92} As I have written previously, the law does not operate effectively against “mice” that use the Internet from nests

\textsuperscript{89} Id.
\textsuperscript{90} Id. § 3(2), 15 U.S.C. § 7702.
\textsuperscript{91} Id. § 4(a), 15 U.S.C. § 7703.
\textsuperscript{92} In 2005 and 2006 I served on an advisory board to Blue Security. The company had innovative software that enabled each user to send one opt-out message to the web site selling the product advertised in the spam email. (That is, the software made it easy for the user to exercise the opt-out right in CAN-SPAM.) The volume of legitimate opt-outs created large traffic on the web sites. To reduce this traffic, the web sites could receive a free, encrypted do-not-spam service from Blue Security. This approach was succeeding – six of the ten largest spammers in the world began using the do-not-spam service. Unfortunately, one of the remaining spammers declared war on Blue Security. In classic organized-crime fashion, the person or group labeled “PharmaMaster” lashed out at everyone connected with Blue Security. Denial-of-service attacks ultimately affected hundreds of thousands of web sites. Brian Krebs, \textit{In the Fight Against Spam Email, Goliath Wins Again}, Wash. Post, May 17, 2006, at A1; Ryan Singel, \textit{Under Attack, Spam Fighter Folds}, Wired News, May 16, 2006, available at http://www.wired.com/news/technology/0,70913-0.html. Based on this experience, I conclude that the problem of black-market spam cannot be solved by passing a law or regulation. Effective action will require the sorts of efforts that have been used against the Mafia or other organized crime rings. Notably, the organized crime rings must be denied safe havens where they are protected by local authorities while retaining open access to the Internet.
offshore,\textsuperscript{93} even the somewhat larger criminal rings that now send most of the black-market spam.\textsuperscript{94}

CAN-SPAM has a much more significant effect on how legitimate businesses send email to consumers. If you buy a computer, then you might expect or even welcome emails from the manufacturer telling you about updates or accessories. If you join a music club, then you get emails about upcoming concerts or music releases. What CAN-SPAM does, pretty successfully, is to give legitimate businesses a minimum standard for sending commercial emails to individuals.\textsuperscript{95} Once you decide not to receive the computer or music club emails any more, you can unsubscribe. Those emails will then typically stop.\textsuperscript{96}

How should CAN-SPAM apply to consumers-as-producers? For instance, suppose a blogger sends email to five commenters to the blog, asking if they would like to gain the privilege to post blog entries, for a fee of $20/month. The statute is triggered if the “primary purpose” of the email is commercial advertisement or promotion. On its face, the email quite possibly seems commercial – it asks for money in exchange for something the five recipients might value. In practice, there may a different primary purpose for the email, such as sharing costs to run a


\textsuperscript{95}The chief problem in practice is that it can be difficult for consumers to be certain that the address provided for opt-out is legitimate and not a fake site used by fraudsters. For ways to address this phishing problem, see “A Call for Action: Report from the National Consumers League Anti-Phishing Retreat,” March, 2006.

\textsuperscript{96}If the emails do not stop, then enforcement against a legitimate business is relatively easy. The consumer can easily save a copy of the opt-out request, and a copy of the continued commercial emails. Although there is no private right of action for consumers, this sort of evidence forms an easy case for state attorneys general and others authorized under the statute to sue.
political blog. In short, detailed facts about the sender and the five recipients may shift our conclusion about whether the statute applies.

Although the statute does not currently have an exception for consumers-as-producers, such an exception may be appropriate. To take a simple example, suppose you send an email to a long-lost friend from high school, whom you haven’t seen in years, seeing if the friend wants to buy something you have made or a service that you offer. In order to send that email, should you be required to include your postal address (which you might not want to share) and maintain a Web presence for at least 30 days? Should you have to consult an attorney to see whether your email triggers the CAN-SPAM requirements?

In the face of these compliance requirements on millions of consumers-as-producers, it may be possible to craft a threshold, such as a dozen or 50 commercial emails per day. A threshold of that sort might enable individualized emails that are primarily commercial, while maintaining the usual CAN-SPAM requirements on mailings of significant size. The CAN-SPAM prohibitions on false email headers could apply even to consumers-as-producers. In that way, the recipient would have a fairly easy way to identify and contact the sender to opt-out of future contacts. Perhaps the FTC or Congress could hold hearings to determine how well such a threshold would work in practice.

3. THE FEC AND BLOGGING: WHEN DO FAVORABLE COMMENTS BECOME “CAMPAIGN CONTRIBUTIONS”?

The campaign finance laws impose complex regulations on large media, such as newspapers and television stations. There are rules, for instance, that govern when free advertisements or other activities by the media company count as regulated “contributions” to a political

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97 In a somewhat analogous context, discussed further infra text accompanying notes __, the Federal Election Commission in 2006 created a threshold of 500 substantially similar emails for when certain campaign-finance disclaimers are required. 71 Fed. Reg. 18589 (Apr. 12, 2006).

In discussions on background with some attorneys with enforcement experience, concern was expressed that it may be burdensome to require enforcers to show more likely than not that only a small number of emails had been sent. To address this practical enforcement concern, it could perhaps be an affirmative defense that the sender was sending only a small number of emails.

98 The harm to individual recipients is also likely to be negligible – the problem of a flooded in-box does not result from occasional, individualized emails.

campaign. Under the McCain-Feingold reforms of 2002, to take another example, political advertisements require a disclaimer along the lines of “this advertisement was paid by the campaign to re-elect Senator X.”

An important question, which erupted into a major debate in 2005 and 2006, is how these campaign finance rules apply to that vocal species of consumer-as-producer, the political blogger.

The Federal Election Commission was required by a court decision to clarify how the campaign finance laws applied to the Internet. McCain-Feingold provided that key political players use only “Federal” funds – the hardest funds to raise – for any “public communication” that promotes, supports, attacks, or opposes a clearly identified candidate for Federal office. Congress defined “public communication” in a way that listed traditional media such as television and newspapers, but failed to mention the Internet. The initial FEC rules explicitly excluded all Internet communications from the definition of “public communication,” but this interpretation was struck down in federal court.

The FEC was thus obliged to revise its rules in response to the court decision. The political blogging community suddenly became aware that it might become subject to complex campaign finance regulations, as well as FEC fines and other enforcement actions. After all, bloggers incessantly “promote, support, attack, or oppose” clearly identified candidates for political office. If the FEC decided to be expansive in the scope of its Internet regulation, then there could have been profound effects on the way that bloggers engaged in political advocacy.

Under the FEC’s longstanding media rules, news stories, commentaries and editorials (including endorsements) are exempt from regulation unless the media facility is owned or controlled by a candidate, political party of FEC-registered political committee. 11 C.F.R. § 100.73 & .132.


The limits applied to State, district, and local political party committees and organizations, as well as State and local candidates. See Internet Communications, 71 Fed. Reg. 18,589, 18,591 (Apr. 12, 2006).

“Federal” funds are funds subject to the limitations, prohibitions, and reporting requirements of federal campaign finance laws. See 11 C.F.R. § 300.2(g).


Any student of interest-group politics would not be surprised by the next episode in the drama – political bloggers on the left and right united in opposition to being regulated. As I will explain, however, in this instance I believe the opposition was entirely correct. The FEC eventually agreed, and the revised rules place a light touch on the Internet. The definition of “public communication” continues to exclude communications over the Internet, except for paid advertisements placed on another person’s website. Uncompensated blogging, whether done by an individual or a group of individuals, is exempt from regulation. In addition, regardless of the content that appears on an individual’s or a group’s website, a disclaimer is not required unless the individual or group is a registered political committee. In summary, the final rules “make plain that the vast majority of Internet communications are, and will remain, free from campaign finance regulation.”

For supporters of campaign finance, this victory for the bloggers may seem like a defeat for efforts to achieve the goals of campaign finance. I would highlight two responses, of the longer list generated by the bloggers and their allies. The first concerns the constitutional protection of free speech, which has shaped the entire field of campaign finance law since Buckley v. Valeo in 1975. If consumers-as-producers are treated like traditional producers (such as television stations), then the number of entities subject to complex campaign finance rules would rise by orders of

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106 See, e.g., Center for Democracy & Technology and Institute, for Politics, Democracy & the Internet, Joint Statement of “Principles” Relating to Notice of Proposed Rulemaking 2005-10, The Internet: Definitions of “Public Communication” and “Generic Campaign Activity” and Disclaimers, June 3, 2005, available at [http://www.cdt.org/speech/political/20050603cdt-ipdi.pdf](http://www.cdt.org/speech/political/20050603cdt-ipdi.pdf) (collecting 1,115 signatures from advocacy groups, bloggers, and other individuals with diverse political viewpoints) [Hereinafter “Joint Statement of Principles”].


108 11 C.F.R. § 100.94 & .155.

109 11 C.F.R. § 110.11.

110 71 Fed. Reg. at 18,590. The intent of the FEC is clear: “To the greatest extent permitted by Congress and the Shays District decision, the Commission is clarifying and affirming that Internet activities by individuals and groups of individuals face almost no regulatory burdens under the Federal Election Campaign Act.” Id. (emphasis in original).

magnitude. In light of the numerous previous laws that have been struck down on First Amendment grounds,\textsuperscript{112} it was likely prudent for the FEC to be cautious in so greatly expanding the reach of its rules.

Second, and more profoundly, the FEC appreciated that robust political speech on the Internet actually furs

thers the goals of the regulatory regime, instead of being a loophole. Without using the term, the FEC recognizes the importance of consumers-as-producers: “[I]ndividuals can create their own political commentary and actively engage in political debate, rather than just read the views of others.”\textsuperscript{113} The ability of millions of people to produce and disseminate political views contrasts with traditional media: “Unlike television, radio, newspapers, magazines, or even billboards, the Internet can hardly be considered a scarce expressive commodity. It provides relatively unlimited capacity for communication of all kinds.”\textsuperscript{114}

Principle rationales for campaign finance rules are to reduce corruption in politics and to prevent monopolization of political discourse.\textsuperscript{115} The low cost of Internet communications, and the enormous numbers of new political speakers who are facilitated by the Internet, mean that greater political speech on the Internet advances both rationales. The corrupting influence of money is less when effective political


\textsuperscript{113} 71 Fed. Reg. at 18590.

\textsuperscript{114} Id, quoting Reno v. ACLU, 521 U.S. 844, 970 (1997) (internal quotations omitted).

\textsuperscript{115} The prevention of corruption was identified in \textit{Buckley} as the principle governmental interest that justified limits on campaign contributions. Buckley v. Valeo, 424 U.S. at 31. As stated in the Joint Principles: “Robust political activity by ordinary citizens on the Internet, including their monetary contributions, strengthens and supports the central underlying purpose of the campaign finance law: to protect the integrity of our system of representative democracy by minimizing the corrupting influence of large contributions on candidates and office holders.” Joint Principles, \textit{supra} note \textsuperscript{113}, at 2. The risk of monopolization of political discourse, due to the scarcity of traditional broadcast media, has formed the basis for the Fairness Doctrine and other regulation of traditional media. Red Lion Broadcasting Co. v. FCC, 395 U.S. 367 (1969).
communication is possible for ordinary consumers-as-producers. Monopolization of discourse is also avoided: “The Internet’s user-driven control and decentralized architecture support a multiplicity of voices and constrain the ability of any one speaker to monopolize attention or drown out other voices.”

Generally exempting Internet speech from campaign finance laws thus furthers the goals of such laws. Conversely, strict application of campaign finance laws to the Internet would undermine the laws’ goals. If political statements on a blog require compliance with complex campaign finance rules, then the costs of blogging rise substantially. With higher cost comes a lower supply of speech. To put the point in familiar First Amendment language, there would be a major “chilling effect.”

Looking ahead, there have already been proposals to bring large Internet sites into the campaign finance regime. Such proposals likely should be rejected. As already explained, the architecture of Internet speech differs from broadcast speech – there is not the same scarcity and risk of monopolization. In addition, many popular political sites on the Internet are not primarily commercial in the way that newspapers and television stations are commercial. For these largely non-commercial activities, which are created for political speech, the burden of compliance is not appropriate.

116 The FEC stated: “Unlike other forms of mass communication, the Internet has minimal barriers to entry, including its low cost and widespread accessibility...[T]he vast majority of the general public who choose to communicate through the Internet can afford to do so.” 71 Fed. Reg. at 18589-90.
117 Joint Statement of Principles, supra note __, at 1.
119 In particular, the number of visitors to a site should not be the basis for triggering campaign finance requirements. An interesting political site may have no advertisements or other commercial activity at all. In addition, Internet sites sometimes attract huge bumps in visitors when they have newsworthy content. This dissemination of sought-after political news should not entail the penalty of having to comply with complex regulations. If there is indeed movement over time to having some threshold, then a better threshold would likely be based on the scale of commercial activity. Proposed legislation in 2007 attempts to do this, but apparently the definition of commercial activity is substantially over-broad. Id. Major commercial sites are more analogous to the traditional entities subject to broadcast regulation. The presence
C. Lessons for When “Consumers” Should be Regulated as “Producers”

The concept of consumer-as-producer proves helpful in analyzing the extent to which diverse regulatory regimes should apply to individuals who are equipped with personal mainframes. The unifying approach is to identify the harms that the regulatory regime is designed to address. For fraud in advertising, the harm can be created even by individual producers, and the existing regime should apply to small producers. For campaign finance on the Internet, by contrast, the new technological and market structure on the Internet mean that less regulation is actually likely to better achieve the goals of avoiding corruption and monopolization in political speech. For consumer privacy and anti-spam legislation, the harms are likely to be significantly greater for large producers. A threshold is thus appropriate, with regulation on large producers but not small ones.

Two other themes emerge from the analysis. First, we should be very hesitant to require millions of consumers-as-producers to do things that they would not otherwise do. For instance, the teen-ager who cuts lawns does not expect to print a privacy notice, and the sender of a personalized business email does not expect to include a postal address in each email. By contrast, ordinary individuals should have a “reasonable basis” for their claims when they advertise to sell products, such as in newspaper or online classified ads. Regulatory regimes more appropriately apply to consumers-as-producers the more that they track the standards of ordinary people acting in good faith.

Second, one should consider the likelihood that enforcement will be used to harass ordinary consumers-as-producers. One reason to exempt political bloggers from regulation is the high likelihood that complaints will be lodged by those holding different political views. Ordinary political bloggers, therefore, would face the worry of having to hire a lawyer and respond to the complaint filed with the FEC. By contrast, the likelihood of harassing enforcement against a small advertiser seems relatively slight. A complaint is most likely to be lodged by a victim of fraud – someone who relied on the advertisement and was a disappointed consumer. For consumers-as-producers, the costs of defending an

of substantial commercial activities also means that the chilling effect will likely be less, because funds will exist to hire lawyers and assure compliance.

120 Joint Statement of Principles, supra note ___.
enforcement action may easily outweigh the commercial value of the enterprise. The different risk of over-enforcement thus supports having the advertising rule but not the campaign finance rules apply to consumers-as-producers.\footnote{121}

The methodology here is to assess the costs and benefits of consumer protection regulation, as applied both to large producers and producers-as-consumers. An ideal cost/benefit analysis would examine the following: (1) the costs and benefits of compliance by large producers; (2) the costs and benefits of compliance by consumers-as-producers; and (3) the costs and benefits of maintaining a threshold between large and small producers, if such a threshold exists.

This methodology assumes that many of the current consumer protection laws are worth having, but that the laws should be thoughtfully updated with respect to consumers-as-producers. Other observers, such as Professor Richard Pierce, are more skeptical of the usefulness of such regulations. Professor Pierce disfavors many small business exceptions, arguing that fewer regulations would remain on the books if small businesses were subject to them and thus opposed them politically.\footnote{122} Although it would be Panglossian to believe that we are now in the best of all possible consumer protection worlds, I am convinced enough by the economics and psychology literature about market failures that I believe the approach here is justified, to look at the harms addressed by each consumer protection law, and focus on the extent to which consumers-as-producers are likely to contribute to those harms.

D. What is Different About Today's “Consumers-as-Producers”

After examining these reasons why we should pay new attention to the scope of consumer protection law, there is one important objection to the idea that “consumers-as-producers” is a major feature created by

\footnote{121} For CAN-SPAM, the risk of harassing enforcement is currently low. The only private right of action is for Internet service providers, who have to date sued large spammers and not individuals who occasionally send an email that might be considered “commercial.” 15 U.S.C. § 7706(g). If the law were amended in the future to allow a private right of action for any recipient, and there were statutory minimum damages, then there would be the risk of bounty hunters who would sue consumers-as-producers who inadvertently cross the line into commercial email.

\footnote{122} Richard J. Pierce, Jr., Small is Not Beautiful: The Case Against Special Regulatory Treatment of Small Firms, 50 ADMIN. L. REV. 537 (1998). See Garvin, supra note __, at 297-98 n.2 (discussing literature about whether to have small business exceptions).
modern computers and the Internet. The objection points out, correctly, that production from home is nothing new. 123 The term “economics” itself comes from the Greek word for household, with consumption and production thus together at the etymological root of the economics discipline. Pre-factory production, such as farming, weaving, and smithing, typically occurred at home. Retail establishments have historically often featured the shop on the first floor with the family living above. Many small businesses in the physical world today are based at home, including landscape services, solo plumbers or accountants, and so on.

For consumer protection law, however, there are important distinctions between this history and today, for reasons of scale, geographic scope, and the visibility of possible violations. On the issue of scale, the term "personal mainframe" is intended to convey what is different today. As discussed in Part I, individuals today own the computing power of a corporate mainframe from a decade ago. Individuals at home, even in their spare time, can thus produce a quantity and quality of information goods that match the historical profile of medium or large enterprises. Those enterprises are historically subject to enforcement under consumer protection laws, but in the Web 2.0 world much of the “production” is done by individuals working at home, in a setting not historically regulated in the same way. The small scale of the activity is therefore less likely to be a defense for products of the personal mainframe.

The geographic scope of home production is a function both of the personal mainframe and of the Internet. The typical home enterprise historically has served a local market, such as through personal services (such as a plumber), a retail store, or sales through local classified ads or flea markets. The personal mainframe means that an individual at home can produce at a scale that quite possibly outstrips local demand. Perhaps even more importantly, sales through the Internet mean that a seller from home, such as on eBay, reaches a global market. From the point of view of the producer, this global reach has enormous economic advantages because of the expanded pool of buyers. The global reach also has severe regulatory disadvantages, however. Now the producer has to consider whether enforcers in any relevant jurisdiction will seek to enforce consumer protection or other laws.

Consumers-as-producers confront the visibility of much online activity to go along with this multiplicity of possible enforcers. Home-

123 My thanks to Professor Naomi Cahn for emphasizing this point.
based producers in the physical world often create only a meager evidentiary record about whether the seller broke the law. For instance, there may be no clear written contract about what a plumber promised to do, and no clear evidence about whether the plumber’s repairs were defective. By contrast, the consumer protection rules discussed in Part II all tend to produce clear evidence of violations by consumers-as-producers:

- Lack of a privacy policy will be easy to detect on a web site;
- Failure to comply with CAN-SPAM can be proven by anyone who saves the illegal commercial email;
- A misleading advertisement on the web can be easily saved to a user’s computer; and
- A political blog that fails to follow FEC rules will be subject both to easy detection (the required FEC filings will not be posted on the web) and incentives for complaints (partisans of the opposing party have reason to file a complaint).

There is thus considerably greater urgency to clarify consumer protection law for online consumers-as-producers than for traditional home producers who usually sell locally, on a small scale, and with less evidence of violations. Online consumers-as-producers are much more able to produce at a large scale, they have their activities visible in multiple jurisdictions, and they often produce clear evidence of violations as a by-product of online technology. It is thus true that consumers have also been producers since at least the time of the Greeks and the birth of “economics.” But the modern form of consumer-as-producers means that it is newly important to examine which laws historically designed to apply either to “consumers” or “producers” should apply to those who are both.

III. WHEN PRODUCERS ARE ALSO CONSUMERS (AND EMPLOYEES)

Part II looked at the extent to which consumers-as-producers should be treated as producers -- at what point very small producers should comply with consumer protection laws. This Part looks at the extent to which consumers-as-producers should be treated as consumers – at what point consumer-style protections should apply to individuals who are engaged at least somewhat in commercial activity. It also explores how consumers-as-producers should be treated under employment law, as home producers supply their labor in peer-to-peer settings.
A. Consumers-as-Producers as Buyers

As discussed above, current law distinguishes between consumer and commercial purchases. The former are purchases for household purposes, and numerous consumer laws apply. The latter are subject to a more laissez-faire contractual approach.

The rationales for consumer protection laws apply almost as well to consumer-as-producer purchases as they do to entirely consumer purchases. As discussed above, Professor Garvin highlights three rationales for consumer protection: constrained financial resources; information asymmetries compared to large sellers; and various cognitive biases. As Professor Garvin explains, the market failures that justify consumer regulation are likely to be roughly as serious for very small producers as for individual consumers.

The puzzle is what legal reforms should flow from recognizing the increase in consumer-as-producer purchases that are likely to occur in the coming years. Even a commercial law expert such as Professor Garvin is cautious in his doctrinal recommendations. He primarily exhorts courts to be more expansive in the use of certain contract defenses in situations where the promisor is a small producer: “[A] measured examination of resources, information, and cognition in such defenses as duress, mistake, misrepresentation, promissory fraud, and, of course, unconscionability would go far to mitigate the legal difficulties of small business.”

A related approach, perhaps worth pursuing, is to expand the scope of purchasing that is considered “consumer” purchasing, subject to consumer protection laws. The prohibitions on “unfair and deceptive” practices, as exist in the states and Section 5 of the FTC Act, already apply to both consumer and producer purchases. Perhaps contract scholars can contribute to our thinking about how other consumer protection laws could also be revised, where appropriate, to include consumer-as-producer behavior.

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124 See supra Part III.A.
125 Garvin, supra note __, at __.
126 Id. at 387.
In short, a broader range of purchasing is likely to occur in the future that does not fit the traditional definition of “consumer” activities, defined as primarily for personal, family, or household use.\textsuperscript{128} There may be practical legal reforms, addressing significant market failures, to assure consumer protections for consumers-as-producers, even where there is a commercial component. On the other hand, if consumers-as-producers are treated only as producers, then routine household activities in the future may no longer qualify for protection as “consumer” transactions. Widespread use of the personal mainframe, for a mix of commercial and personal activities, may thus counsel for a broader definition of “consumer” under consumer protection laws.

B. Consumers-as-Producers as Sellers of Labor: The Convergence of Consumer and Employment Law

Until now, the focus of legal analysis in this paper has been on consumer protection. The supply of content to Web 2.0 sites, however, can also be viewed in a different frame, as an issue of labor and employment law. An individual supplies labor, in the form of text, open-source software, photographs, or other information goods and services. We next examine issues that may arise in the labor market of the Web 2.0 world. My experience in employment law is limited, so the following discussion explores possible issues rather than claiming to have clear answers.

My interest in employment in the future was piqued by two passages in Rainbow’s End, a brilliant recent novel by prize-winning science fiction author Vernor Vinge.\textsuperscript{129} At one point the main characters are taking a class to prepare them to enter the workforce. The teacher begins:

This class is about search and analysis, the heart of the economy. We obviously need search and analysis as consumers. In almost all modern jobs, search and analysis are how we make our living.\textsuperscript{130}

\textsuperscript{128} See supra supra TAN __ (discussing definition of consumer transaction under TILA and other laws).
\textsuperscript{129} VERNOR VINGE, RAINBOWS END: A NOVEL WITH ONE FOOT IN THE FUTURE (2006).
\textsuperscript{130} Id. at 59.
This quotation sums up the effect of the personal mainframe on future employment – economic value derives from “analysis” in the personal mainframe, teamed with “search” through the global Internet. The value exists for us as consumers, where we “obviously need search and analysis” to find the goods and services we want to buy. The value simultaneously exists for us as producers, because “search and analysis are how we make our living.” As we participate in Web 2.0, the lines blur between supplying content and producing it, and between work (how we make our living) and leisure (how we surf, and post, and do what we consider fun). In economic terms, part of the benefit of participating in a Web 2.0 activity is consumption (utility based on the individual’s taste for participating) and part is production (utility from money or other compensation).

The second Vinge passage is when a main character, Juan, agrees to become an affiliate to a mysterious organization that is seeking to hire him:

A payoff certificate floated in the air between them, showing the named amount and a bonus schedule. Juan had played his share of finance games. “I get twice that or no deal.” Then he noticed the subrights section.131

This passage shows a routine employment negotiation of Vinge’s near future. Throughout the book, Vinge stresses that almost no one has a “real” job any more, if “real” is understood as full-time and long-term work for one employer. Instead, Juan is being offered a pay-for-performance deal. For each defined task, the affiliate contract provides that he will get paid a named amount, with a bonus schedule for high performance.

The FTC has shown recent signs of recognizing the importance of scrutinizing affiliate relationships in electronic commerce. In late 2006 the FTC reached a $3 million settlement with Zango, Inc., formerly known as 180Solutions, for online affiliate-marketing abuses.132 An important aspect of the Zango case was the responsibility of the lead company to use due diligence with respect to practices in its affiliate network.

The offer to Juan, however, goes beyond the responsibility of a lead company to monitor what its affiliate network is doing. Juan’s offer features phenomena that are well-known in other contexts. One is the legal validity of “clickwrap” licenses, where the consumer clicks “I agree” to a

131 Id. at 57.
software or other license.\textsuperscript{133} The other concerns the political and legal debates on “contracting out,” where work once performed within an organization gets shifted to contractors or sub-contractors. Juan’s negotiation combines the two. Employment in Vinge’s future features the individual deciding whether to click quickly on a contracting-out agreement.

From the consumer protection perspective, the clickwrap employment deal rings alarm bells. The individual faces the usual contract problems of resources, information, and cognition. For something as important as an employment contract, there are potentially significant harms to individuals if the contract is unfair or deceptive.

As we have seen throughout the paper, similar sorts of deceptive practices have existed for years. Long before the Internet, consumer protection agencies prosecuted scams where individuals thought they were buying a valuable franchise for door-to-door sales but instead were victims of an elaborate con.\textsuperscript{134} The FTC first issued its Franchise Rule in 1978, requiring detailed and standardized disclosures to franchisees.\textsuperscript{135} The rule was updated in early 2007.\textsuperscript{136} Looking ahead, though, Juan’s sort of affiliate contract may become much more pervasive.\textsuperscript{137} If so, then greater legal and public policy attention may be needed.

To summarize the discussion, Juan’s transaction can sensibly be analyzed as a consumer protection issue – is Juan being ripped off when he spends his time and money in the affiliation? It can also be analyzed as a

\begin{footnotesize}

\textsuperscript{134} See, e.g., ARTHUR LEFF, SWINDLING AND SELLING: THE STORY OF LEGAL AND ILLEGAL CON GAMES 97-109 (1976) (explaining the structure of door-to-door franchise opportunities as a con game).

\textsuperscript{135} See 16 C.F.R. Part 436 & 437 (disclosure requirements and prohibitions concerning franchising and business opportunities).


\textsuperscript{137} When this portion of the paper was first presented at a conference, a participant noted the similar analysis in the then-newly-published book Wikinomics, supra note __. Tapscott and Williams write: “Employment relationships will necessarily become more fluid, definitely less long term, and undoubtedly more horizontal.” Id. at 265.
\end{footnotesize}
producer relationship – are these unfair employment or labor practices when Juan is supplying his labor? In a world of consumers-as-producers, we thus see an increasing convergence of consumer protection and employment law. The goal is not to draft onerous regulations that will get in the way of sensible purchasing and employment contracts. Instead, experts in both consumer protection and employment law should study this convergence, and respond to the extent there are specific market failures that are worth correcting.

IV. THE IMPORTANCE OF “CONSUMERS-AS-PRODUCERS” TO THE LAW OF CYBERSPACE

The term “consumers-as-producers” emphasizes the economic and market aspects of individuals who use their personal mainframes. By contrast, much of the academic writing about the law of cyberspace has emphasized non-market aspects of modern computing. For instance, Larry Lessig stresses “creativity” rather than “economic innovation” in his discussion of copyright law.138 Niva Elkin-Koren specifically argues that economic analysis and consumer protection law are inappropriately narrow lenses for viewing the use and production of copyrighted goods.139 Dan Hunter and Greg Lastowka have written a fine article on computing and copyright that they entitle “ Amateur-to-Amateur,”140 with the implicit message that unpaid “amateurs” are the defining examples of modern computing. Perhaps most notably, Yochai Benkler stresses the non-market nature of modern computing in his magisterial work The Wealth of Networks: How Social Production Transforms Markets and Freedoms.141

The discussion here shows why the idea of “consumers-as-producers” is an effective alternative to the claims about the nonmarket nature of modern computing. The argument here, at a descriptive level, is that consumers really are acting as economic producers in substantially more important ways than Benkler, in particular, acknowledges. Next, the discussion explains why the term “consumers-as-producers” is a useful

complement to the nonmarket approaches put forward by Benkler, Lessig, Elkin-Koren, and others.

A. “Consumers-as-Producers” as an Alternative to Nonmarket Descriptions of Modern Computing

The non-market nature of modern computing is most prominent in Professor Benkler’s work. It is a central theme in “The Wealth of Networks”: “The dramatic decline in the cost of the material means of producing and exchanging information, knowledge, and culture has substantially decreased the costs of information expression and exchange, and thereby increased the relative efficacy of nonmarket production.” 142

He makes this description -- the shift to nonmarket production -- a logically essential condition for his larger conclusions:

It is the feasibility of producing information, knowledge, and culture through social, rather than market and proprietary relations – through cooperative peer production and coordinate individual action – that creates the opportunities for greater autonomous action, a more critical culture, a more discursively engaged and better informed republic, and perhaps a more equitable global community. 143

In short, at least in much of his discussion, Professor Benkler hinges his argument on the reader accepting a highly contestable descriptive claim, that “market and proprietary relations” are being displaced by “social production.” 144

142 Id. at 56.
143 Id. at 92 (emphasis added).
144 In other passages in the 515-page book, Professor Benkler is more cautious in his claims about the shift to nonmarket production. He admits at one point, for instance, that the “distinction I draw here between market-based and nonmarket-based activities is purposefully overstated to clarify the basic structural differences.” Id. at 291. Nonetheless, a major theme of the book is “the much larger role” of nonmarket production, id. at 464, and its “much greater significance” than has been true historically. Id. at 462. He also goes to considerable length to document the odd corners of traditional economics where higher prices do not seem to create a higher supply of labor. Id. at 91-127. While the existing research does indeed suggest that such odd corners exist, it is a far more doubtful claim that major fractions of the economy will shift from market to
I advance three reasons for doubting Benkler’s broad descriptive claim. To begin, Benkler uses an overly narrow definition of “market” transactions. For the production of software, he distinguishes between “market” actions for proprietary software and “nonmarket” actions for free and open source software. Such a distinction, however, bears little relation to economic reality. The writing of open-source software is funded today in large measure by major companies including IBM, Sun, and Red Hat. This investment is “market” activity. Benkler also appears to treat software services as admirable but software products as market-based and objectionable. From a simple economics standpoint, it is a market decision whether a consumer decides to spend dollars on a service or a product. There may be many other reasons to favor open-source software, but it is wrong to say that software services, often provided by large companies, are “nonmarket.”

Second, hobbyist and nonmarket activities are more prominent for early adopters, in the start-up phase of a new technology. Over time, the niche grows, and becomes important enough for people to be paid for their activities. The hobbyists do not disappear, but the market often becomes a larger fraction of total activity as the importance of the niche grows. In short, the critique is that Benkler mistakes the start-up phase of Web 2.0 technologies (significantly nonmarket) for how those activities will look as they mature (increasingly market-based).

Several example illustrate the pattern:

- I have just mentioned this shift in the writing of open-source software. The earlier pattern of unpaid coders working at night has shifted decisively to an investment project for large companies, with employees writing open source code as their day job.

nonmarket production, or that a major fraction of human motivation will do a similar shift.

145 In discussing the “large scope for peer production in free software,” id. at 320 (emphasis added), Professor Benkler cites to billions of dollars in software services, which “do not depend on exclusion from the software, but on charging for service relationships.” Id. at 321.

146 Id.

The beginning of the Internet’s domain-name system can be traced to 1969, when Jon Postel “first started keeping lists of network protocol numbers on a scrap of notebook paper.”

Today, by contrast, every major corporation pays employees to keep track of its own domain names, lawyers are paid to handle trademark and cybersquatting problems, and the system of domain names is maintained through paid staff in the Internet Corporation for Assigned Names and Numbers and throughout the world.

The discovery of software bugs and other vulnerabilities was until recently predominantly the domain of volunteers. Today, there is a marked shift to professionalization, with bug hunters increasingly expecting to be paid for their discoveries.

Benkler celebrates the “nonmarket” and “social” production of wikis, blogs, and other Web 2.0 activities. Many corporations, however, already pay employees to write blogs and keep track of other blogs. Public relations and advertising professionals, moreover, are rapidly increasing their efforts to comment, post, and otherwise shape content in the Web 2.0 world.

These examples show the progression from the start-up phase, with passionate amateurs, to the more mature phase, where the technology is important enough to become the basis of professional work. The Internet itself is a perfect example of this phenomenon. Commercial activity was

150 Del Quentin Wilber, This is Your Elite Flier Speaking, Wash. Post., June 7, 2007, at D1. This article describes how commercial airlines now have employees monitor and participate in blogs about airlines such as Flyertalk: “These are free focus groups,” one such employee said, “Every airline executive in his right mind is reading Flyertalk and other sites.” Id. at D3.
151 This trend is evidenced by the 11,000 people who attended the Web 2.0 Expo held last April in San Francisco. See Dan Fost, Web 2.0 Broadens Its Appeal, SAN FRANCISCO CHRON., Apr. 19, 2007, at C1. In addition, the trend has created a market for specialized software to enable advertising, marketing, and public relations professionals to better utilize Web 2.0 formats. See, e.g., Sway Launches Shoutlet Web 2.0 Marketing Tool, BUS. WIRE, June 6, 2007.
prohibited on the Internet until 1993, and an observer at that time could easily have written about the “social production” of content on the Net and the weakness of “market” forces in the networked world. Today, the non-commercial early version of the Internet has evolved into enormous commercial activity.

Standard economic analysis provides the third reason for critiquing Benkler’s claim that new computing technology has “increased the relative efficacy of nonmarket production.” Benkler and I agree on one initial effect, the “dramatic decline in the cost of the material means of producing and exchanging information, knowledge, and culture.” That initial effect is an outward shift in the supply curve, and thus increased production in information goods.

The increased production of information goods does not show, however, whether there is increased relative efficacy of nonmarket production. In debating this topic, Benkler made the point that the outward shift in the supply curve results in a greater supply of goods at zero price. This description, that “nonmarket” can be defined operationally as supplying a good at zero price, is a useful clarification that is not explicit in the book. The problem, however, is that an outward shift in the supply curve also increases production where the price is positive, i.e., for “market” production. Reaching a conclusion about the “relative efficacy” of market and nonmarket would require data on the increase in production at price zero compared to all prices above zero. Benkler does not supply such data in the book, and his claim about the relative efficacy of nonmarket production is thus unproven. In addition, even if nonmarket production for some good did increase at a faster rate than market production, the quantity of increase in market production could easily be

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152 See supra note ___ (describing shift in NSF terms of service).
153 Id. at 56.
154 Id.
155 I presented the initial version of this paper at the Freedom-to-Connect conference in Silver Spring, Md., in March, 2007, and Professor Benkler gave an insightful rebuttal. We have discussed these issues further subsequently, including at a workshop he presented in May, 2007 at the George Washington University.
156 To take a simple numeric example, suppose 10 units of a type of information good are provided for free initially, with another 90 units supplied at various prices by professional sellers. If the costs of production fall sharply, then the professional distribution channels may increase their volume faster than the zero-price channels. In such an instance, the relative efficacy of professional sellers, in the market, may have increased more than for nonmarket providers.
greater than the quantity of increase in nonmarket production. For these reasons, reduced cost of a personal mainframe and other computing resources quite logically leads to a greater output of market-based production, and quite possibly an increased relative efficacy for market production.

B. “Consumers-as-Producers” as a Complement to Nonmarket Descriptions of Modern Computing

The analysis of The Wealth of Networks has shown reasons for doubting the accuracy of its descriptive claims of a large relative shift to nonmarket production. Because the book explicitly bases its broader political theory claims on this descriptive shift, the critique leaves those broader claims as unproven.

The idea of consumers-as-producers thus provides an alternative description of modern computing, and one that appears to be more accurate in major respects. Using the more explicitly market-based approach in this paper not only appears more accurate, but can be seen as a useful complement to Benkler’s approach. Even for those inclined to agree with Benkler on description, there are pragmatic advantages to developing the market-based arguments as well.

The market-based perspective in this paper provides an alternative way to characterize policy issues addressed by Professor Benkler and the other theorists of the nonmarket approach. The words “consumer” and “producer” are standard economic terms. Many millions of individuals now own a personal mainframe. As the cost of owning an Information-age factory has plummeted, we would expect the supply of information goods from individuals to rise sharply. The economic policy question, then, becomes how these changes in supply should affect legal rules.

To illustrate the usefulness of this economic approach, consider an explicitly economic argument about intellectual property that Professor

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157 To take a simple numeric example, suppose initially that nonmarket production for an information good is 10 and market production is 90. With declining costs, suppose that nonmarket production doubles to 20, and market production goes up only by 50%, to 135. After the change, the nonmarket portion would be 20/135, or 12.9%. The relative portion of nonmarket would have increased from 10% to 12.9%, but the increase in market would be 45 compared to 10 for nonmarket. Where market production is thus rising at a greater quantity than nonmarket production, there is little basis to make sweeping conclusions about the emerging centrality of nonmarket production.
Benkler and others have previously developed.\textsuperscript{158} The traditional theory of copyright and other intellectual property has stressed that property rights will \textit{increase} production by giving a producer an incentive to invest in writing, making a movie, or other intellectual creation. The opposing point is that property rights will \textit{decrease} production because existing copyrights are expensive inputs to new intellectual creation. It is an empirical question in any given setting whether stricter property rights will be efficient by increasing production.

My point here is that the language of “consumers-as-producers” quite possibly increases the relative strength of the second position. The world of industrial production featured a relatively small set of producers, who were experienced in negotiating licenses. Among these repeat players, the problem of expensive inputs was limited. It was fairly easy to negotiate a price that benefited the rights holder while permitting the project to go forward. Efficient negotiations are far more difficult in a world of many millions of consumers-as-producers. Bargaining costs are also likely to be large compared with the small market reached by the typical consumer-as-producer. In such a setting, efficient licensing agreements often will not be achieved. The problem of expensive inputs becomes relatively more important, and there is thus a significant economic argument against increasing intellectual property rights.\textsuperscript{159}

This economic argument about copyright law illustrates the pragmatic reasons to present a market-based analysis of the issues that Professor Benkler and other theorists address. First, for those who do agree that there has been a major shift to nonmarket relations, the economic approach offers a complementary way to analyze the effects of networks and the personal mainframe. Second, because of the descriptive doubt about whether the shift to nonmarket relations has occurred, and Professor Benkler’s admission that his conclusions depend on that shift, the market

\textsuperscript{158} E.g., Benkler at ___; Brett M. Fischmann & Mark A. Lemley, \textit{Spillovers}, 107 COLUM. L. REV. 257, 298 (2007) (analyzing ways that spillovers in intellectual property, rather than reducing efficiency, may increase it).

\textsuperscript{159} A fuller analysis would also have to analyze the extent to which consumers-as-producers would benefit from themselves owning expanded intellectual property rights. The claim here is not that previous authors have neglected to discuss the bargaining costs and other reasons why changed circumstances may increase the spillover problems. The claim instead is that a market-based perspective, stressing the economic aspects of activities by millions of consumers-as-producers, makes it more plausible that the net economic benefits of very strict property rights outweigh the net economic benefits of less strict property rights.
approach provides a firmer logical basis for making legal and policy recommendations.

A third reason supporting careful economic analysis is Occam’s Razor, the reluctance to multiply assumptions. Professor Benkler relies on an assumption of technological exceptionalism: individuals responded primarily to market forces during the industrial age, but they will respond far more heavily to nonmarket forces in the information age. It is a highly risky rhetorical strategy to base legal and policy conclusions on this sort of shift in human nature. Consumers-as-producers offers a far more parsimonious explanation of the effects of current technology. Newly equipped with an information-age factory, a typical individual is more likely to supply information goods and services. Web 2.0 is not a discontinuity in human history; instead, consumer-created content is predictable when the costs of inputs fall.

A fourth reason for market analysis comes from practical politics. A market-based discourse is the most persuasive way to present arguments to key audiences. Within the academy, law-and-economics remains a major movement. Outside of the academy, making arguments in hard-headed efficiency terms will be the best approach for the many listeners who continue to believe in the importance of markets. Careful market-based arguments will thus be vital to the sorts of legal and institutional change championed by Professor Benkler and other cyberlaw theorists.

V. CONCLUSION

This article has examined the implications of the idea of “consumers-as-producers.” The term accurately captures the intensively economic and market aspects of modern computing, for many millions of users. Equipped with a personal mainframe, users can produce high-quality information goods from home, and sell through the global distribution system of the Internet.

The idea of “consumers-as-producers” has profound implications for consumer protection law, which was founded on the assumption of large producers and small consumers. Although there has been home production as long as there has been production, there are crucial differences today. Today’s consumers-as-producers operate on a much greater scale and geographic scope, and their potential violations of consumer protection law tend to be much more visible and provable. There is thus new urgency to defining when consumers-as-producers should be treated as “producers,” and have to comply with consumer protection laws. Part II provided an intellectual structure for crafting those definitions.
A related question is the extent to which consumers-as-producers should lose the protections of consumer law when they act in the commercial marketplace. The rationales for consumer protection law, as reinforced by behavioral law-and-economics, suggests that small producers, often based at home, should quite possibly receive legal protections similar to those that apply to pure consumer buyers. In addition, work at home on the personal mainframe will blur the distinction between a “producer” and an “employee.” The insights of labor and employment law experts will thus increasingly be needed as we see a convergence of consumer and employment law issues.

The term “consumers-as-producers” does more than highlight these legal issues about the scope of consumer law (does the home producer have to comply with consumer laws?) and producer law (does the home producer gain the protections of consumer laws?). The significantly economic aspects of home computing challenge leading accounts of computing as essentially “nonmarket.” At a factual level, there is abundant evidence of the heavily market nature of home computing -- the personal mainframe, the history of “personal productivity” software dating back to the birth of the PC, the home-based sales on eBay, the rise of advertising revenues around home-based blogs, and so on. This article thus proposes the “consumers-as-producers” approach as a plausible alternative to the nonmarket views of Professor Benkler and other theorists. It also explains, at a minimum, that “consumers-as-producers” is a highly useful complement to such views.

Thinking even more broadly, it is interesting to consider the extent to which the idea of “consumers-as-producers” could be useful in other contexts. For instance, standard economic theory contrasts “producers,” which maximize profits, with “consumers,” who maximize utility. As the two combine for a wider range of actions, builders of economic models may find it useful to analyze “consumers-as-producers” more explicitly. To take another example, the idea of “consumers-as-producers” may be interesting for students of American politics. Historically, consumer protection has been an issue especially for Democrats, while Republicans have more consistently stressed meeting the needs of small business. This contrast suggests the possibility of political realignment as the interests of consumers and small businesses increasingly merge. These possible effects on economic theory and politics are further indications of the important implications of individuals owning personal mainframes and becoming “consumers-as-producers.”