

**THE CONSUMER PRODUCT SELECTION PROCESS
IN AN INTERNET AGE: OBSTACLES TO MAXIMUM
EFFECTIVENESS AND POLICY OPTIONS**

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I. INTRODUCTION

Your twelve-year-old microwave oven dies. You want a high quality replacement with a revolving tray that can hold a 10" plate and fit into a space 26" wide, 14" deep, and 13" high. Unfortunately, the most recent Consumer Reports analysis of microwaves is one year old, and none of the dozen models reviewed strikes your fancy. Searching the Internet drowns you with choices. You wish it were possible to consult someone with detailed knowledge of ALL microwave ovens for sale, who could quickly and easily provide web addresses for the few models that best met your criteria and were rated highest by a person or institution you respected. To save hours of searching, you would even be willing to pay a small fee.

The Internet gives online consumers unprecedented access to detailed information about products for sale anywhere in the world. This helps many buyers discover precisely what they want and where to buy, often enabling them to purchase directly from providers¹ (e.g., travelers buying airline tickets from airlines).² Many consumers, however, overwhelmed by the multitude of choices and abundance of data about those choices,³ still want assistance when shopping. They seek a

1. In the mid-1990s, many predicted that the Internet would lead to "disintermediation," a general bypass of middlemen, retailers, and other intermediaries. See ROBERT E. LITAN & WILLIAM A. NISKANEN, *GOING DIGITAL* 17 (1998) ("As in the private sector, the role of intermediaries . . . will become less relevant."); Alina M. Chircu & Robert J. Kauffman, *Reintermediation Strategies in Business-to-Business Electronic Commerce*, INT'L J. ELECTRONIC COM., Summer 2000, at tbl.3, available at http://webfoot.csom.umn.edu/faculty/phds/achircu/researchweb/ck_ijec_2000.pdf.

2. See Barbara Boydston, *Ticket, Please*, WALL ST. J., July 17, 2000, at R38 (estimating that fewer than 5% of U.S. travel purchases are made on the web, but that that figure is projected to hit 12% by 2003); Edwin McDowell, *With Special E-Fares, Online Bookings Soar*, N.Y. TIMES, June 7, 2000, § 1, at 14.

3. See Sheena S. Iyengar & Mark R. Lepper, *When Choice is Demotivating: Can One Desire Too Much of a Good Thing?*, 79 J. PERSONALITY & SOC. PSYCHOL. 995 (2000); Barry Schwartz, *Self-determination: The Tyranny of Freedom*, 55 AM. PSYCHOL. 79, 86-88 (2000); Lisa Belkin, *Shopping is Getting Much More Complicated*, N.Y. TIMES, Aug. 8, 1985, at A1; Erica Goode, *In Weird Math of Choices, 6 Choices Can Beat 600*, N.Y. TIMES, Jan. 9, 2001, at D7; Kirk Johnson, *Feeling Powerless in a World of Greater Choice*, N.Y. TIMES, Aug. 27, 2000, § 1, at 29; Robert Kanigel, *Overwhelmed! Sometimes Too Much Choice Is Too Much of a Good Thing*, WASH. POST, Jan. 4, 1998, at C1. The general problem of "information overload" has long been recognized. For example, in 1982, one author observed: "We are drowning in information Scientists [sometimes] . . . complain of information pollution and charge that it takes less time to do an experiment than to find out whether or not it has already been done." JOHN NAISBITT, *MEGATRENDS: TEN NEW DIRECTIONS TRANSFORMING OUR LIVES* 24 (1982).

recommendation of their best choice or a short list of the most suitable options for further consideration.⁴

Shoppers unsure of which product best fits their needs may currently consult various types of intermediaries (retailers, *Consumer Reports*, etc.)⁵ or online “infomediaries.”⁶ In the Internet Age, the most effective infomediary for this task is likely to be one that can help consumers craft search profiles (based on their individual needs and desires) and apply them to a sufficiently comprehensive database (containing detailed information about all the products in a market segment). Databases, like the real estate industry’s multiple-listing services (“MLSs”), offer consumers access to a dramatically broader set of options than any traditional store or salesperson’s memory could hold. They also permit shoppers to sort these options according to dozens, if not hundreds, of attributes.⁷ Computers then enable buyers to transcend the information processing capacities of humans⁸ by applying precisely designed personal profiles to those databases and generating short, accurate lists of the best options. The Internet then enables consumers to expand those lists into virtual high-tech catalogues of their choices by linking to the Internet addresses depicting the items.⁹

A 2000 study found that the world produces between 1 and 2 exabytes of unique information per year, where an exabyte is a billion gigabytes or 10^{18} bytes. See Peter Lyman & Hal R. Varian, *How Much Information?* (Oct. 2000), at <http://www.sims.berkeley.edu:80/how-much-info/how-much-info.pdf>.

4. This analysis of shopping is also relevant to other types of “shoppers,” such as those seeking a religious affiliation. See SIDNEY SCHWARZ, *FINDING A SPIRITUAL HOME* 18 (2000) (“Raised to be educated consumers in a society offering a dizzying array of choices, boomers have learned to shop around to meet their spiritual needs.”).

5. See *infra* Section II.C; Robert D. Hershey, Jr., *Death of the Fund Salesman Has Been Greatly Exaggerated*, N.Y. TIMES, Oct. 8, 2000, § 3, at 8 (predicting that “overwhelmed investors will still turn to brokers and financial planners for help” in choosing from among the thousands of mutual funds available).

6. The emerging class of entities often called infomediaries is discussed in JOHN HAGEL III & MARC SINGER, *NET WORTH* xi–xii (1999); Mitra Barun Sarkar et al., *Intermediaries and Cybermediaries: A Continuing Role for Mediating Players in the Electronic Marketplace*, 1 J. COMP. MEDIA COMM. 3 (1995); J. Yannis Bakos, *The Emerging Role of Electronic Marketplaces on the Internet*, COMM. ACM, Aug. 1998, at 35; Gary Hamel & Jeff Sampler, *The E-Corporation*, FORTUNE, Dec. 7, 1998, at 90; Nicholas Negroponte, *Reintermediation*, WIRED, Sept. 1997, at 208.

7. Many of the attributes that information economists characterize as subjective “experience” or “credence” qualities can be quantified into quasi-“search” qualities. See *infra* notes 103–05 and accompanying text.

8. Much of the research on consumer behavior focuses on how limitations on the ability of consumers to store and process information among other limitations leads them to adopt simplified, but less accurate, search strategies. See *infra* Section II.C.; JAMES R. BETTMAN, *AN INFORMATION PROCESSING THEORY OF CONSUMER CHOICE* (1979).

9. Moreover, the catalogue can be dynamic and interactive. See *infra* notes 491–93.

By enabling such databases to be shared globally, the Internet creates an environment conducive to the emergence of *selection assistants* ("SAs") that both compile relevant product databases and help buyers design profiles for effectively searching them.¹⁰ With detailed descriptions of individual products already online, SAs can offer separate, "unbundled" consulting services, without the need to finance or manage costly product displays and inventory.¹¹ Emerging forms of SAs create the potential for an environment approaching perfect information¹² and perfectly competitive markets.¹³

While the marketplace is already providing consumers with a few versions of SAs, the government should ensure that buyers have the opportunity to enjoy the full benefits of competition and innovation that this technology offers.¹⁴ The U.S. Commerce Department is already

10. These entities are in the family of infomediaries that go by many different names and include: (1) the interactive home shopping ("IHS") systems, discussed in Joseph Alba et al., *Interactive Home Shopping: Consumer, Retailer, and Manufacturer Incentives to Participate in Electronic Marketplaces*, J. MARKETING, July 1997, at 38; (2) the recommendation agents ("RAs") and comparison matrices ("CMs") defined in Gerald Häubl & Valerie Trifts, *Consumer Decision Making in Online Shopping Environments: The Effects of Interactive Decision Aids*, 19 MARKETING SCI. 4, 7–8 (2000); and (3) the decision support systems ("DSSs") referred to in Peter Todd & Izak Benbasat, *The Influence of Decision Aids on Choice Strategies: An Experimental Analysis of the Role of Cognitive Effort*, 60 ORG. BEHAV. & HUM. DECISION PROCESSES 36, 37 (1994).

11. See PHILIP EVANS & THOMAS S. WURSTER, BLOWN TO BITS: HOW THE NEW ECONOMICS OF INFORMATION TRANSFORMS STRATEGY, 107–10 (1999); John G. Lynch, Jr. & Dan Ariely, *Wine Online: Search Costs Affect Competition on Price, Quality, and Distribution*, 19 MARKETING SCI. 83, 101 (2000) ("[R]etailers' task is to . . . provide consumers with useful product related information that will increase . . . consumers' satisfaction with the merchandise they purchase."). This dramatically lowers entry barriers. See, e.g., Robert S. Boynton, *Hoping Web Success Strikes Twice*, N.Y. TIMES, Nov. 11, 2000, at B7 (discussing the website Arts & Letters Daily).

12. See BILL GATES, THE ROAD AHEAD 157–58 (1995) (describing "friction free capitalism"); ALAN MURRAY, THE WEALTH OF CHOICES: HOW THE NEW ECONOMY PUTS POWER IN YOUR HANDS AND MONEY IN YOUR POCKETS 84–102 (2000). While current market rules already create incentives for firms to reveal significant amounts of information about their products, firms still prefer to leave significant amounts of information undisclosed. See Roger B. Myerson, *Mechanism Design*, in THE NEW PALGRAVE: ALLOCATION INFORMATION AND MARKETS 191 (John Eatwell et al. eds., 1989).

13. See George Anders, *Cybersqueeze: Comparison Shopping is the Web's Virtue — Unless You're a Seller*, WALL ST. J., July 23, 1998, at A1; Gary Hamel, *Will the 'Frictionless' Economy Slip You Up?*, WALL ST. J., June 6, 2000, at A26.

14. "The practical policy goal is not to *increase* competition but to select the 'best' mix of competitive forms." Thomas B. Leary, *Antitrust Economics: Three Cheers and Two Challenges* (Nov. 15, 2000) (quoting Harold Demsetz, 100 Years of Antitrust: Should We Celebrate?, Brent T. Upson Memorial Lecture, George Mason University School of Law, Law and Economics Center (Sept. 21, 1989)), at <http://www.ftc.gov/speeches/leary/threecheers.htm>.

attempting to identify regulations that may unnecessarily hinder e-commerce firms,¹⁵ but policy analysts should also consider how to prevent the emergence of corporate practices likely to stifle optimal competition and innovation. To help public officials identify such potential impediments to efficient e-business, this Article provides a draft framework for understanding the dynamics of the product selection process in an Internet environment. It then identifies three categories of potential obstacles that may prevent full and effective competition. Section III examines those that may limit the *breadth* of choices consumers can consider. Section IV discusses those that may limit consumers' ability to compare *features* of attractive alternatives. Section V considers hindrances to consumer efforts to design the most effective *search profiles*.

This Article finds that many threats to a fully competitive cyberspace environment can be handled effectively by the private sector, through adjustments to business strategies.¹⁶ Accordingly, this mechanism should be favored unless it appears likely to be ineffective.¹⁷ As one example, this Article examines the complaints of eBay and the National Association of Realtors ("NAR") that competitors are free riding¹⁸ on the data that they have compiled and published to attract buyers to their websites. It observes that current laws provide eBay and other database compilers with many opportunities to adopt strategies for earning significant returns on their investments. Moreover, this Article explains how the "database protection" law supported by eBay, NAR, and many others might have diminished innovation and competition.¹⁹ The Article also identifies multiple strategies that valued evaluation services, like *Consumer Reports*, might adopt to protect themselves against free riding.²⁰

15. See Notice, Request for Public Comment on Laws or Regulations Posing Barriers to Electronic Commerce, 65 Fed. Reg. 4801 (Feb. 1, 2000).

16. For example, shopping bots defeated the efforts of some booksellers to hide their profits in shipping costs. See *infra* note 234 and accompanying text.

17. See LITAN & NISKANEN, *supra* note 1, at 51–54.

18. Free riding occurs when entities do not pay for some good or service because they hope or know that others will pay for it and the good or service will, because of its "public good" nature, be available to all. See WALTER NICHOLSON, *INTERMEDIATE MICROECONOMICS AND ITS APPLICATION* 516–17 (7th ed. 1997); Thomas Eovaldi, *The Market for Consumer Product Evaluations: An Analysis and a Proposal*, 79 NW. U. L. REV. 1235, 1239–40 (1985); Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86, 91 (1960). The concept of "public good" is discussed *infra* note 300.

19. See *infra* Section III.C.1.

20. See *infra* Section IV.B.1.b.

Furthermore, this Article finds that improvements in information processing technologies justify a reevaluation of regulations that limit competition out of fear that consumers may be unqualified to make good choices. Thus, as SAs permit the public to search effectively for lawyers, doctors, etc., according to the particular skills desired, a shift from licensing restrictions to voluntary certifications would seem likely to increase competition and substantially benefit consumers.²¹ This Article also observes that other potential problems seem most amenable to voluntary industry trade association action or the entry of trusted third parties²² — remedies which are generally preferable to government action.²³

This Article recognizes, however, that in many cases at least a limited government role is in the public interest.²⁴ For example, where trade associations have set reasonable business standards,²⁵ they may welcome government enforcement efforts that prevent “bad apples” from

21. See *infra* Section III.C.2.

22. See Solveig Singleton, *Self-Regulation: Regulatory Fad or Market Forces?*, CATO TODAY'S COMMENTARY, Aug. 7, 1999, available at <http://www.cato.org/dailys/08-07-99.html>; Monroe E. Price & Stefaan G. Verhulst, *In Search of the Self: Charting the Course of Self-Regulation on the Internet in a Global Environment*, § 1.4 (Mar. 2000) (unpublished manuscript, on file with Cardozo Law School), available at http://papers.ssrn.com/sol3/delivery.taf?15091&_UserReference=FD019A890D14CC183A3677AA.

23. Even most regulators appear to prefer marketplace solutions to government regulation. See, e.g., John Graubert & Jill Coleman, *Consumer Protection and Antitrust Enforcement at the Speed of Light: The FTC Meets the Internet*, 25 CAN.-U.S. L.J. 275, 286 (1999). Nevertheless, voluntary codes have many potential drawbacks. See Nicole Ladouceur, *Calibrating the Electronic Scales: Tipping the Balance in Favour of a Vigorous and Competitive Electronic Market for Consumers*, 25 CAN.-U.S. L.J. 295, 302–03 (1999); Paul M. Schwartz, *Privacy and Democracy in Cyberspace*, 52 VAND. L. REV. 1609, 1687–96 (1999); Singleton, *supra* note 22.

24. Even “non-interventions” recognize that government action is justified in some circumstances. See ROBERT W. HAHN, A PRIMER ON COMPETITION POLICY AND THE NEW ECONOMY 8 (AEI-Brookings Joint Center for Regulatory Studies, Working Paper No. 01-03, Feb. 2001) (observing, for example, the value of case-by-case evaluations of individual industries), available at http://www.aei.brookings.org/publications/working/working_01_03.pdf. See generally LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999) (observing that laws are necessary to permit the marketplace and Internet code to function consistently with society's values). It is important, however, that the government adopt a reasonably proportionate response. See Pamela Samuelson, *Five Challenges for Regulating the Global Information Society* § II.B, in REGULATING THE GLOBAL INFORMATION SOCIETY (forthcoming 2000), available at http://papers.ssrn.com/paper.taf?abstract_id=234743.

25. Standards may be proposed, initially, by a respected individual or publication and then be embraced more widely. See, e.g., Daniel Berdichevsky & Eric Neunschwander, *Toward an Ethics of Persuasive Technology*, COMM. ACM, May 1999, at 51.

tarnishing the industry's reputation.²⁶ When industries develop new products with confusing features and competitors cannot agree on norms allowing easy comparisons by buyers, government efforts to adopt recommended criteria for this purpose may be helpful to both buyers and sellers of the best products.²⁷ Such efforts may be particularly useful in helping industries set guidelines to avoid congestion on members' website servers caused by price bots or "spiders," a problem that eBay has already taken to court.²⁸

In its role as public educator, it also seems appropriate for the government to help consumers learn to use new information search tools for shopping as well as other purposes.²⁹ This Article suggests that consumers should be advised about how to protect their ability to switch from one SA to another without losing the chance to enable their new SA to provide customized selection services based on their buying history.³⁰

The government should also clarify how existing antitrust laws against tying and denials of access to an essential facility apply to database businesses.³¹ The district court in *United States v. Microsoft* has already recognized the difficulty of applying the rules against "tying" to new information technologies.³² This analysis may be particularly important if "network effects"³³ lead to the virtual monopolization of

26. For example, the Organic Trade Association supported strict USDA standards for organic foods. See Marian Burros, *U.S. Imposes Standards for Organic-Food Labeling*, N.Y. Times, Dec. 21, 2000, at A22.

27. See *infra* Section IV.A.1.

28. See *infra* Section IV.D.

29. See *infra* Section V.C.2.

30. See *infra* Section V.C.1. This is separate from consumers' privacy interests, which are not discussed in this Article. A good review of such interests is provided in FEDERAL TRADE COMMISSION, PRIVACY ONLINE: FAIR INFORMATION PRACTICES IN THE ELECTRONIC MARKETPLACE, A REPORT TO CONGRESS 6-7 (May 2000), available at <http://www.ftc.gov/reports/privacy2000/privacy2000.pdf>.

31. This Article presumes that the antitrust laws do and should apply to "high-tech" e-commerce business practices. Cf. U.S. DEPARTMENT OF JUSTICE AND FEDERAL TRADE COMMISSION, ANTITRUST GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS (April 2000), reprinted in 4 Trade Reg. Rep. (CCH) § 13,160; LITAN & NISKANEN, *supra* note 1, at 70-73. But see David J. Teece & Mary Coleman, *The Meaning of Monopoly: Antitrust Analysis in High-Technology Industries*, 43 ANTITRUST BULL. 801 (1998); Robert J. Barro, *Why the Antitrust Cops Should Lay Off High Tech*, BUS. WEEK, Aug. 17, 1998, at 20.

32. See Brief of Amici Curiae Lawrence Lessig, *United States v. Microsoft*, 97 F. Supp. 2d 59 (2000) (No. 98-1232/3) (addressing the question of how antitrust tying law should apply to software products, at the request of the U.S. District Court for the District of Columbia), available at <http://cyber.law.harvard.edu/works/lessig/ab.pdf>.

33. Network effects arise when a good or service becomes more valuable as more individuals use it, such as a telephone or fax machine. See CARL SHAPIRO & HAL R.

detailed product databases and multi-product collaborative filtering databases.³⁴ Policymakers have also recognized that existing disclosure rules deserve to be reevaluated in light of the emergence of new information technologies.³⁵

While policymakers usually wait for anticompetitive practices to arise before acting,³⁶ a more proactive strategy can be socially beneficial³⁷ by anticipating and deterring harmful conduct and, thus, avoiding less productive uses of resources. Many scholars have embraced this approach,³⁸ recognizing that it is desirable to promote the most vigorously competitive and innovative e-commerce environment possible.

VARIAN, INFORMATION RULES 173–225 (1999); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998); Patricia B. Seybold, *Ubiquity Breeds Wealth*, BUS. 2.0, Mar. 2000, at 241.

34. See *infra* Section IV.C.1. See *infra* note 331 and accompanying text for a definition of collaborative filtering.

35. For example, see Interpretation of Rules and Guides for Electronic Media, 63 Fed. Reg. 24,996 (1998) (request for public comments), which produced FEDERAL TRADE COMMISSION, DOT COM DISCLOSURES: INFORMATION ABOUT ONLINE ADVERTISING (May 2000); see also Greg Winter, *F.D.A. Action Could Change Food Marketing on the Web*, N.Y. Times, Feb. 14, 2001, at C11 (reporting that “the F.D.A. is beginning to apply the same stringent standards to company web sites that it does to product labels”).

36. This was the initial position of the Federal Communications Commission on open access to cable television broadband capacity. See *infra* note 158.

37. See Thomas B. Nachbar, *Paradox and Structure: Relying on Government Regulation to Preserve the Internet’s Unregulated Character*, 85 MINN. L. REV. 215, 216 (2000) (“[I]t could very well be that the lack of uniform and readily understood rules is keeping the Internet from reaching its true potential.”); LESSIG, *supra* note 24, at 222–30; Greg Sato, *Should Congress Regulate Cyberspace?*, 20 HASTINGS COMM. & ENT. L.J. 699, 718 (1998); Ilene Knable Gotts & Alan D. Rutenberg, *Navigating the Global Information Superhighway: A Bumpy Road Lies Ahead*, 8 HARV. J.L. & TECH. 275, 277–78 (1995); Allen S. Hammond, IV, *Regulating Broadband Communications Networks*, 9 YALE J. ON REG. 181 (1992); Dan Rosen, *A Common Law for the Ages of Intellectual Property*, 38 U. MIAMI L. REV. 769, 785 (1984).

38. See Susan S. DeSanti, *The Evolution of Electronic B2B Marketplaces*, Remarks Before the FTC Public Workshop on Competition Policy in the World of B2B Electronic Marketplaces, June 29, 2000, available at <http://www.ftc.gov/bc/b2b/b2bdesanti.htm>; Robert Hershey, Jr., *Brave New Math Tests Limits of Accounting*, N.Y. TIMES, Mar. 29, 2000, at H37 (noting the proactive philosophy of the Financial Accounting Standards Boards Emerging Issues Task Force). In addition, the Canadian Office of Consumer Affairs coordinated a Working Group on Electronic Commerce and Consumers, which approved the Principles of Consumer Protection for Electronic Commerce, available at <http://strategis.ic.gc.ca/oca>. States have also taken proactive legislative actions, as with the adoption of the Uniform Electronic Transactions Act (“UETA”) (final draft as of Nov. 1, 1999), available at <http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm>, and the Uniform Computer Information Transactions Act (“UCITA”) (1999), available at <http://www.law.upenn.edu/bll/ulc/ucita/ucitanc.htm>.

II. BACKGROUND

A. The Internet Has Widened the Global Marketplace

The Internet is only the newest technology to increase consumer choices by expanding the size of manufacturers' markets. Transportation technologies—including railroads, canals, and trucks—first enabled consumers to purchase from distant merchants.³⁹ The postal service and photographic technologies allowed consumers to view catalogue photographs of products that were not displayed locally.⁴⁰ More recently, broadcast and cable television have allowed buyers to view full-motion displays of distant products. Now, the Internet makes it easy to view—on demand—sophisticated product descriptions from firms throughout the world,⁴¹ with language translation technologies eliminating yet another barrier.⁴² Most manufacturers have concluded that they cannot afford to ignore online shoppers.⁴³

39. See ALFRED D. CHANDLER, *THE VISIBLE HAND: THE MANAGERIAL REVOLUTION IN AMERICA* (1977).

40. Orvis issued its first catalogue of fishing equipment in 1844, with the Tiffany catalogue making its debut a year later, and Montgomery Ward (1872) and Sears (1886) following thereafter. See, e.g., Albert Haas, Jr., *How to Sell Almost Anything By Direct Mail*, *ACROSS THE BOARD*, Nov. 1986, at 45, 48.

41. See Jon G. Auerbach, *A Brush With the Future*, *WALL ST. J.*, July 12, 1999, at R32. Traditional marketing materials can be tailored to satisfy the rules of a particular locale. Once posted on the Internet, however, material is available everywhere in cyberspace unless it is filtered out. This raises problems for those presenting information prohibited by some nations, such as ads targeted to children. See Ladouceur, *supra* note 23, at 298; see also Sarah Ellison, *Amazon.com Tries to Woo Online Buyers In France Despite Ban on Television Ads*, *WALL ST. J.*, Sept. 20, 2000, at B8. Moreover, the cost of pursuing a cross-border claim can be extremely high, and the outcome unpredictable. See *id.*; see also John Rothchild, *Protecting the Digital Consumer: The Limits of Cyberspace Utopianism*, 74 *IND. L.J.* 893 (1999); Kimberly A. Strassel, *If There's Something Rotten in Denmark, Mickey Denies All Guilt*, *WALL ST. J.*, Jan. 12, 1999, at A1 (discussing a dispute between Danish officials and the United States over the Walt Disney website). If the use of "digital certificates" became the standard method for Internet users to identify themselves, see LESSIG, *supra* note 24, at 49–53, then pages could be filtered by servers based on the location indicated by the viewer's certificate. See *id.* at 207–08.

42. See David Kushner, *Untangling the Web's Languages*, *N.Y. TIMES*, Apr. 20, 2000, at G1; Lisa Guernsey, *Toward Better Communication Across the Language Barrier*, *N.Y. TIMES*, July 29, 1999, at G4; Evantheia Schibsted, *You Say Tomato, She Says Jitomate*, *BUS. 2.0*, Nov. 1999, at 49. Foreign sales, however, can be more difficult. See Andrew Ross Sorkin, *Bol.com Serves Local Flavors All Over Europe*, *N.Y. TIMES*, Mar. 29, 2000, at G6.

43. See Saul Hansell, *On-Line Shopping: Good, Bad and Growing*, *N.Y. TIMES*, Dec. 10, 1998, at G1; Stephanie Stoughton & Leslie Walker, *By Selling Online, Manufacturers Bypass Retailers*, *WASH. POST*, Feb. 8, 1999, at A1. Even high-fashion

Many consumers, long comfortable with making purchase decisions based on photographs from the more than thirteen billion catalogues mailed annually,⁴⁴ find the abundance and quality of product information available on websites to be quite compelling.⁴⁵ Thus, increasing numbers of consumers are willing to forgo in-person attention from salespeople,⁴⁶ socializing with friends,⁴⁷ serendipitous adventures,⁴⁸ and other desirable aspects of conventional shopping.⁴⁹ Although shoppers may prefer to stay offline when seeking a sensual item, such as a new perfume, food, or a clothing texture,⁵⁰ online shoppers are discovering

firms, like Ralph Lauren, which long resisted visual Internet displays because of dissatisfaction with the quality of the web's presentation of their products, are participating in e-commerce. See *Ralph Lauren Saddling Up High-Fashion E-Commerce*, CNETNEWS.COM (Nov. 7, 2000), at <http://news.cnet.com/news/0-1007-200-3423074.html>. Other manufacturers have refrained from direct online sales to avoid alienating retailers or incurring the substantial cost of product fulfillment. See *id.*; Lain Choust Ehmann, *Picture Imperfect*, INDUSTRY STANDARD, May 1, 2000, at 319; Bob Tedeschi, *Traditional Manufacturers are Grappling with the Pros and Cons of Direct Sales on the Internet*, N.Y. TIMES, Jan. 3, 2000, at C7.

44. This is more than two per household per week. See, e.g., MARY MEEKER & SHARON PEARSON, MORGAN STANLEY US INVESTMENT RESEARCH, *THE INTERNET RETAILING REPORT 14-1* (May 28, 1997) (citing Direct Marketing Association statistics), available at <http://www.ms.com/main/link21.html>. Note, even initially pure online "e-tailers" have begun offering catalogues. See Andrea Hamilton, *The New Old Thing*, INDUSTRY STANDARD, Mar. 20, 2000, at 94.

45. See *infra* notes 491–93 and accompanying text (identifying some of the most compelling product information).

46. See Kristy E. Reynolds & Sharon E. Beatty, *Customer Benefits and Company Consequences of Customer-Salesperson Relationships in Retailing*, 75 J. RETAILING 11 (1999); Mimi Swartz, *Annals of Retail: Victoria's Secret*, NEW YORKER, Mar. 30, 1998, at 94, 96 ("[Shoppers] want someone to affirm their importance, their fabulous lives, and their flawless taste."). But see Mary Tannen, *Appearances: Working It*, N.Y. TIMES, Oct. 8, 2000, § 6 (Magazine), at 104 ("When they ask, 'Can I help you?' a psychic battle ensues, and you're usually the loser.").

47. See PACO UNDERHILL, *WHY WE BUY* 115–16 (1999).

48. See B. JOSEPH PINE, III & JAMES H. GILMORE, *THE EXPERIENCE ECONOMY: WORK IS THEATER & EVERY BUSINESS A STAGE* (1999); Paul Goldberger, *The Store Strikes Back*, N.Y. TIMES, Apr. 6, 1997, § 6 (Magazine), at 45 ("Retailers are working to make stores provide . . . the thrill of an event, . . . the kind of communal excitement that is hard to find this side of Disneyland."); Ruth La Ferla, *Don't Get Out Much? You'll Love This Store*, N.Y. TIMES, July 2, 2000, § 9, at 2; Jennifer Steinhauer, *The Teach and Sell School of Retailing*, N.Y. TIMES, Feb. 28, 1998, at D1.

49. See Ruth La Ferla, *Plenty of Bucks, But Still Prowling for Buys*, N.Y. TIMES, Mar. 26, 2000, § 9, at 1; Anne Raver, *Waiting for the Web To Be A Garden Spot*, N.Y. TIMES, June 1, 2000, at F8; Phyllis Rose, *Hers: Shopping and Other Spiritual Adventures in America Today*, N.Y. TIMES, Apr. 12, 1984, at C2; Michelle Slatalla, *A Little Something for You, and for Humanity*, N.Y. TIMES, Oct. 28, 1999, at C4.

50. See UNDERHILL, *supra* note 47, at 168; Jennifer Steinhauer, *Old-Line Retailers Resist On-Line Life*, N.Y. TIMES, Apr. 20, 1998, at D1. But see Jeffrey Davis, *Made to Odor*, BUS. 2.0, Dec. 1999, at 216–28; Anne Eisenberg, *A Sense of Taste Online, But*

that the Internet often offers an efficient way to at least narrow down their options.⁵¹

*B. Shopping the Internet "Without" Middlemen
Can Be Frustrating*

Shoppers can currently use Internet search engines⁵² to access manufacturers directly through the World Wide Web by using the generic name of a product or some of its features.⁵³ Such "disintermediated" searching, as predicted by some commentators,⁵⁴ however, has many drawbacks when a consumer has not yet selected the precise product to buy. In particular, the lists produced by search engines are generally both under- and over-inclusive.⁵⁵ This happens for many reasons: not all suppliers presently maintain web sites;⁵⁶ no single search engine appears to cover even half of the "indexable web"⁵⁷ (at

First Take a Sniff, N.Y. TIMES, Dec. 21, 2000, at G11.

51. See David A. Patton, *The Best Way to . . . House Hunt: The Web Can Make Your Search for a New Home More Efficient*, WALL ST. J., Dec. 6, 1999, at R43 (quoting statistics showing the "the average consumer who doesn't use the Net to shop for a home will look at 28 homes, while a shopper doing a Web-assisted search will look at eight homes"); see also EVANS & WURSTER, *supra* note 11, at 73-74; Frank DeCaro, *Out in Cyberspace Sales Help Listens*, N.Y. TIMES, Dec. 19, 1999, § 9, at 10; Eric Young, *Stalled on the Digital Highway*, INDUSTRY STANDARD, Sept. 11, 2000, at 90 ("Most of the current traffic at auto sites is for research.").

52. Search engines are websites that enable a user to retrieve a list of Internet addresses of web pages based on the combination of words or phrases that the user provides.

53. See Jennifer Rowley, *Product Search in E-Shopping: A Review and Research Propositions*, 17 J. CONSUMER MARKETING 20 (2000).

54. See *supra* note 1.

55. See Lisa Napoli, *Where, Oh Where Has My Shopping Bot Gone?*, N.Y. TIMES, Sept. 20, 2000, at H7. Even the search engines at retailer and manufacturers' sites suffer from these infirmities. See G. Patrick Pawling, *In Search Of . . .*, INDUSTRY STANDARD, Oct. 16, 2000, at 234.

56. See ERNST & YOUNG, THE SECOND ANNUAL ERNST & YOUNG INTERNET SHOPPING STUDY: THE DIGITAL CHANNEL CONTINUES TO GATHER STEAM 26-27 (1999); James Daly, *Editor's Note: Giving Away the Store*, BUS. 2.0, Sept. 1999, at 1.

57. See Eric T. Bradlow & David C. Schmittlein, *The Little Engine That Could: Modeling the Performance of World Wide Web Search Engines*, 19 MARKETING SCI. 43, 58-61 (2000); Steve Lawrence & C. Lee Giles, *Accessibility and Distribution of Information on the Web*, NATURE, July 8, 1999, at 107 (estimating that no search engine exceeds one sixth of the web). Moreover, it appears that it will be increasingly hard for search engines to keep up with the rapidly expanding web. See Elinor Abreu, *Diving Into the Deep Web*, INDUSTRY STANDARD, Sept. 11, 2000, at 119 (estimating that there were 550 billion documents stored on the Internet in early 2000); John Markoff, *As Web Expands, Search Engines Puff to Keep Up*, N.Y. TIMES, May 29, 2000, at C3 (discussing the unpublished research of two Dartmouth College computer scientists, Brian E. Brewington & George Cybenko, who estimate that, to keep reasonably current, a search

least partly due to the time lag in listing them⁵⁸); many sites are not labeled clearly⁵⁹ (in some cases purposefully to deceive search engines⁶⁰); some sites may be purposefully excluded for competitive reasons;⁶¹ and searches often yield so many extraneous offerings that they overwhelm the user.⁶² To paraphrase one forecaster of retailing technology, "imagine looking for a blouse through a department store carrying nothing but unsorted blouses from the basement to the top floor."⁶³ The development of web page standards, like eXtensible Markup Language ("XML"),⁶⁴ and specialization of search engines⁶⁵ and agents⁶⁶ should improve the ability of shoppers to retrieve web pages

engine now needs a communications pipeline capable of carrying 50 Mbps).

58. See *Ask Nettie*, INDUSTRY STANDARD, Mar. 20, 2000, at 229.

59. See Bob Tedeschi, *Turning Small Business' Web Dreams Into Reality*, N.Y. TIMES, Oct. 11, 1999, at C12.

60. See Ira S. Nathenson, *Internet Infoglut and Invisible Ink: Spamdexing Search Engines with Meta Tags*, 12 HARV. J. L. & TECH. 43 (1998); Lucas D. Intronis & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matters*, 16 INFO. SOC'Y 169, 174-75 (2000); F. Gregory Lastowka, Note, *Search Engines, HTML, and Trademarks: What's the Meta For?*, 86 VA. L. REV. 835 (2000); Diana Hsieh, *Scamming Google*, GEEKPRESS (Oct. 30, 2000), at <http://www.geekpress.com/stories/google.shtml>. Search engines may also manipulate which sites are displayed for pay. See, e.g., Laurie Flynn, *Desperately Seeking Surfers*, N.Y. TIMES, Nov. 11, 1996, at D5; Elizabeth Stone, *Helping Webmasters Land in Search Engines' Nets*, N.Y. TIMES, Mar. 23, 2000, at G6.

61. See Saul Hansell, *Alta Vista Invites Advertisers to Pay for Top Ranking*, N.Y. TIMES, Apr. 15, 1999, at C1; Saul Hansell, *In Bots We Trust?*, N.Y. TIMES, Nov. 18, 1999, at G1 [hereinafter Hansell, *In Bots We Trust?*].

62. See WARD HANSON, PRINCIPLES OF INTERNET MARKETING 267 (1999); Esther Dyson, Intellectual Property on the Net ("The new wave is not value-added; it's garbage-subtracted."), at http://www.eff.org/pub/Misc/Publications/Esther_Dyson/ip_on_the_net.article.

63. Tina Kelley, *Internet Shopping: A Mixed Bag*, N.Y. TIMES, July 30, 1998, at E1; see also Dan L. Burk, *Muddy Rules for Cyberspace*, 21 CARDOZO L. REV. 121, 152-53 (1999) ("The contents of the Internet might be likened to the contents of the Library of Congress, without call numbers, and dumped out on the floor.").

64. See Jon Bosak & Tim Bray, *XML and the Second-Generation Web*, SCI. AM., May 1999, at 89; Anne Eisenberg, *A New Language May Ease Web Use*, N.Y. TIMES, June 3, 1999, at G11; Robert Glushko et al., *An XML Framework for Agent-based E-Commerce*, COMM. ACM, Mar. 1999, at 106-14.

65. See Elinor Abreau, *Let a Hundred Search Engines Bloom*, INDUSTRY STANDARD, July 24, 2000, at 128; Lisa Guernsey, *Mining the 'Deep Web' With Sharper Shovels*, N.Y. TIMES, Jan. 25, 2001, at G1 (reporting on new search engines that better filter irrelevant sites).

66. The term "agent" can be used to describe any automated software program. See Stephen T. Middlebrook & John Muller, *Thoughts on Bots: The Emerging Law of Electronic Agents*, 56 BUS. LAW. 341, 342-45 (2000). Here, however, the reference is to "bots," programs that gather data "on the fly" from the web rather than compiling their own database of information prior to a search. See Pattie Maes et al., *Agents that Buy and Sell*, COMM. ACM, Mar. 1999, at 81; Kees Jonkheer, *Intelligent Agents, Markets and Competition: Consumers' Interest and Functionality of Destination Sites*, FIRST

with the attributes they seek, but searchers must still rely on the credibility of many different suppliers⁶⁷ and ignore most data generated by third parties.⁶⁸

Consumers may also use the Internet to solicit sellers directly. They might post an electronic want ad in a publication's online edition or at a forum hosting "requests for proposals" ("RFPs").⁶⁹ Websites, such as Autobytel.com, which allow buyers to seek the best deal for a previously-selected product, can be very useful for finding the merchant with the best price.⁷⁰ Consumers can also use sites like ValueStar.com, or Respond.com,⁷¹ which replace postings with e-mails to a list of potentially relevant sellers. If those hosting RFPs remain relatively passive, however, the solicitations may attract numerous undesirable responses, particularly when the buyer seeks subjective features, like a "charming" inn⁷² or an "authentic" autographed baseball.⁷³ While ValueStar's system of screening buyers may eliminate extraneous offerings, it also increases the likelihood that the buyer will miss eager and qualified potential sellers who do not believe that ValueStar's annual "certification" fee is cost effective.

MONDAY (Jun. 7, 1999), at http://firstmonday.dk/issues/issue4_6/jonkheer/index.htm.

67. Because the product selection process requires buyers to trust assessments of many subjective standards, it seems unlikely that bots or agents will represent particularly effective tools for this purpose, although they seem likely to be useful for finding the best price among trusted merchants. See Anne Eisenberg, *In Online Auctions of the Future, It'll Be Bot vs. Bot*, N.Y. TIMES, Aug. 17, 2000, at G8.

68. Agents surveying suppliers for data would fail to consider much, if not most, data critical of offerings that were only available off-line or from third parties, as discussed below in Section IV.B.

69. For example, many of the largest metropolitan newspapers have pooled their resources to produce a national online employment service. See Classified Ventures, at <http://www.classifiedventures.com>; see also Perfect.com, at <http://www.perfect.com/about/index.html> (offering an enhanced RFP model).

70. This Article, however, focuses on *product*, not *merchant*, selection. See *infra* notes 229–31 and accompanying text.

71. See Michelle Slatalla, *Site Invites Shoppers to Wax Eloquent*, N.Y. TIMES, Aug. 24, 2000, at G4.

72. The problem with searching for offerings with "experience" or "credence" qualities, see *infra* text accompanying notes 102–05, can be alleviated if the buyer demands that a seller provide certification that the offering has the required qualities from a trusted evaluator, as discussed below in Section IV.B.1.

73. If consumers rely on unfamiliar authenticators, which a passive intermediary does not verify, they incur a serious risk of fraud. In late 2000, buyers sued eBay under California state law asserting that the company had an obligation to verify the authenticity of items sold through its online auction site. See *Stoner v. eBay*, 56 U.S.P.Q.2d 1852 (Cal. Super. 2000); Lisa Guernsey, *EBay Faces Suit on Sale of Fake Goods*, N.Y. TIMES, Oct. 16, 2000, at C6. EBay, however, later won a dismissal of this suit. See *EBay's Liability Is Cleared in Suit*, N.Y. TIMES, Jan. 20, 2001, at C14.

Two contrasting flaws handicap both search engines and forums for posting RFPs: they omit some desired items and fail to exclude other undesirable ones. These are the same twin failings of even the best brick-and-mortar stores. Some of the latter have tried to remedy over-inclusiveness by providing consumers with “personal shoppers,”⁷⁴ but the inherent space constraints, which limit the number of displays stores can offer, are a more difficult problem.⁷⁵ Although personal shoppers could alleviate this restriction by using their knowledge of the entire product market, most tend to confine their suggestions to the limited selections offered by their employers.⁷⁶ Thus, shoppers seeking an optimal choice usually need to consult multiple stores, search engines, or bulletin boards, and spend valuable time on frequently fruitless forays, something few seem willing to do.⁷⁷ The problem faced by brick-and-mortar stores is that each offering must either be included or excluded; there is no middle ground.

74. See Anne Faircloth, *One-on-One Shopping*, FORTUNE, July 7, 1997, at 235.

75. Given limited shelf space, a key issue faced by retail store and category managers is “which items should be added to or deleted from the assortment.” See Kitty Koelemeijer & Harmen Oppewal, *Assessing the Effects of Assortment and Ambience: A Choice Experimental Approach*, 75 J. RETAILING 319, 319 (1999); Shelby H. McIntyre & Christopher Miller, *The Selection and Pricing of Retail Assortments: An Empirical Approach*, 75 J. RETAILING 295 (1999); Neal Johnson, *The Web Adds Exotic Colors, But at the Garden’s Edge*, N.Y. TIMES, Mar. 29, 2000, at H35; Sharon King, *Staying in Vogue: Clothing Designers Adjust to a Vastly Changed World*, N.Y. TIMES, Nov. 4, 1998, at D1 (“Department stores keep inventories low . . . and have reduced the number and styles they carry.”); Donna Wilkinson, *The Search for Beauty Isn’t Cramped by Shelf Space Anymore*, N.Y. TIMES, Mar. 29, 2000, at H34.

76. See Gail Gilchrist, *Dream Teams*, WORKING WOMAN, Feb. 1996, at 60–63; Randy Cohen, *The Ethicist: A Criminal Past*, N.Y. TIMES, Sept. 3, 2000, § 6 (Magazine), at 26 (explaining that if customers assume they’re receiving unbiased advice, they’re often being deceived). The Macy’s Santa Claus in *The Miracle on 34th Street*, who suggests that a customer go to Macy’s competitor, Gimbals, for a particular toy, is the fictional exception that proves the rule.

77. Surveys show that for consumer durables, half of consumers look at only one store and only 30% look at more than one brand for appliances. See James Bettman, *Decisionmaking*, § IV.A.1 (Sept. 19, 2000) (class materials for Consumer Behavior course at the Duke University Fuqua School of Business, on file with author). Research indicates that consumers rarely visit more than two outlets even when they are buying expensive consumer durables. See Joseph W. Newman, *Consumer External Search: Amount and Determinants*, in CONSUMER AND INDUSTRIAL BUYING BEHAVIOR 79, 79–80 (Arch G. Woodside et al. eds., 1977); see also *infra* note 80.

C. What Shoppers Want and the Value of Databases

While consumers desire to identify their best option, most willingly settle for less-than-the-best choices, a practice that has been called "satisficing."⁷⁸ Often this is due to limitations on their ability to store and process large amounts of information,⁷⁹ their general reluctance to spend costly time and money on searches,⁸⁰ and their desire to satisfy other goals.⁸¹ Thus, shoppers commonly decline to consider greater numbers of relevant options, even though it would improve the accuracy of their selection.⁸² Instead, consumers generally construct preferences and strategies heavily based on situational considerations, such as the limited effort they are willing to expend on a search.⁸³ Consumers seek

78. Herbert Simon coined this phrase to describe consumers' tendency to settle for a merely satisfactory option, rather than expend additional effort to find a superior choice. See Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 Q.J. ECON. 99 (1955). Despite this empirical condition, rational choice theory economists still assume that consumers generally maximize their existing preferences for a good, which may be the best alternative theory that is practical. See Daniel McFadden, *Rationality for Economists*, 19 J. RISK & UNCERTAINTY 73 (1999).

79. See James G. March, *Bounded Rationality, Ambiguity, and the Engineering of Choice*, 9 BELL J. ECON. 587 (1978); see also BETTMAN, *supra* note 8.

80. See Sharon E. Beatty & Scott M. Smith, *External Search Effort: An Investigation Across Several Product Categories*, 14 J. CONSUMER RES. 83, 83 (1987); E. Scott Maynes & Terje Assum, *Informationally Imperfect Consumer Markets: Empirical Findings and Policy Implications*, 16 J. CONSUMER AFFAIRS 62 (1982); see also DAVID LOUDON & ALBERT J. DELLA BITTA, CONSUMER BEHAVIOR CONCEPTS & APPLICATIONS 507-08 (1993); SAK ONKVISIT & JOHN T. SHAW, CONSUMER BEHAVIOR: STRATEGY & ANALYSIS 480-81 (1994); Eovaldi, *supra* note 18, at 1240-42; George Stigler, *The Economics of Information*, 69 J. POL. ECON. 213 (1961); Louis L. Wilde, *The Economics of Consumer Information Acquisition*, 53 J. BUS. S143, S145-52 (1980).

81. In addition to maximizing accuracy and minimizing effort, consumers also often desire to minimize possible negative emotional effects and maximize their ability to justify their decisions. James Bettman et al., *Constructive Consumer Choice Processes*, 25 J. CONSUMER RES. 187, 196-99, 205-07 (1998).

82. See John R. Hauser & Birger Wernerfelt, *An Evaluation Cost Model of Consideration Sets*, 16 J. CONSUMER RES. 393 (1990); Brian T. Ratchford, *The Value of Information for Selected Appliances*, 17 J. MARKETING. RES. 14 (1980); Stigler, *supra* note 80. For one possible explanation for this behavior, see Iyengar & Lepper, *supra* note 3.

83. See Bettman et al., *supra* note 81, at 199-200. This process of construction is more like an architectural project than an archeological task of uncovering preferences. See Robin Gregory et al., *Valuing Environmental Resources: A Constructive Approach*, 7 J. RISK & UNCERTAINTY 177, 179 (1993); John W. Payne et al., *Measuring Constructed Preferences: Towards a Building Code*, 19 J. RISK & UNCERTAINTY 243, 244 (1999). Consumers appear to be well aware of the tradeoff between effort and accuracy. See Eric J. Johnson & John W. Payne, *Effort and Accuracy in Choice*, 31 MGMT. SCI. 395 (1985); James R. Bettman et al., *A Componential Analysis of Cognitive Effort in Choice*, 45 ORG. BEHAV. & HUM. DECISION PROCESSES 111 (1990).

to maximize their satisfaction with the combination of their choice *and* their *decision process*.⁸⁴ Shoppers then generally use a two-stage selection process. First, they use some strategy to narrow their options from all alternatives to a manageable "consideration" set;⁸⁵ then they devote greater efforts to select from that set.⁸⁶

Computers now provide consumers with a much more effective tool for storing and processing product information.⁸⁷ They reduce the effort required to consider massive data,⁸⁸ and produce better selections,⁸⁹ among other effects.⁹⁰ Moreover, given the overwhelming number of choices⁹¹ and the diminished time consumers are willing to spend on shopping,⁹² the need for such assistance is increasing.⁹³ As the CEO of

84. See Gavan J. Fitzsimmons, *Consumer Response to Stockouts*, 27 J. CONSUMER RES. 249, 252 (2000); Patricia M. West et al., *Agents to the Rescue*, 10 MARKETING LETTERS 285, 296 (1999).

85. See Hauser & Wernerfelt, *supra* note 82, at 393; *cf. infra* text accompanying note 372. The consideration set is typically 3–4 brands, but the size varies by category and culture (e.g., less than 3 brands for beer in the U.S., about 7 brands in Canada; 2 car options in Norway, more than 8 in the U.S.). See Bettman, *supra* note 77, § IV.A.2.a.

86. See John W. Payne et al., *Adaptive Strategy Selection in Decision Making*, 14 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY & COGNITION 534 (1988); see also *infra* note 97.

87. See Dan Ariely, *Controlling the Information Flow: Effects on the Consumers' Decision Making and Preferences*, 27 J. CONSUMER RES. 233 (2000); Lynch & Ariely, *supra* note 11; J. Yannis Bakos, *Reducing Buyer Search Costs: Implications for Electronic Marketplaces*, 43 MGMT. SCI. 1676 (1997); Alexandrous Moukas et al., *Agent-mediated Electronic Commerce: An MIT Media Laboratory Perspective*, INT'L J. ELECTRONIC COM., Spring 2000, at 5. Software for creating such databases is available from multiple sources. See John P. Baron et al., *Web-based E-catalog Systems in B2B Procurement*, COMM. ACM, May 2000, at 93, 96; Sean Donahue, *Plugging in the Catalog*, BUS. 2.0, Aug. 22, 2000, at 54; Pam Kleier, *Letters: The 'Wiring' Trick*, BUS. 2.0, Oct. 24, 2000, at 17.

88. See, e.g., Todd & Benbasat, *supra* note 10; Moukas et al., *supra* note 87.

89. See Bakos, *supra* note 87, at 1684; Lynch & Ariely, *supra* note 11, at 101; Danièle T. Singh & Michael J. Ginzberg, *An Empirical Investigation of the Impact of Process Monitoring on Computer-Mediated Decision Making Performance*, 67 ORG. BEHAV. & HUM. DECISION PROCESSES 156 (1996); Robert E. Widing II & Wayne Talarzyk, *Electronic Information Systems for Consumers: An Evaluation of Computer-Assisted Formats in Multiple Decision Environments*, 30 J. MARKETING RES. 125 (1993). This may also have both effects. See Häubl & Trifts, *supra* note 10, at 17–18.

90. SAs would also permit consumers to diminish negative emotional effects because the computer could apply any painful tradeoffs that a consumer made multiple times without creating additional pain. Also, SAs could easily satisfy consumers' desire for justification by printing out the formula and ratings of all choices to demonstrate the superiority of the item selected. They might also be programmed to translate the statistics into a one or two sentence justification.

91. See *supra* note 3.

92. See JULIET B. SCHOR, *THE OVERWORKED AMERICAN: THE UNEXPECTED DECLINE OF LEISURE* (1993); Trish Hall, *Shop? Many Say, "Only if I Must,"* N.Y. TIMES, Nov. 28, 1990, at C1 (reporting that interviews with scores of market researchers and shoppers

Furniture.com observed, customers “don’t want a football field of furniture. . . . They want a boutique filled exclusively with the stuff they love.”⁹⁴ The best system would appear to be one that permits consumers to create a search profile based on their preferences,⁹⁵ apply it to the set of all worthwhile options,⁹⁶ and generate a consideration set⁹⁷ of all of their best choices.

SAs can use databases to provide this service. By permitting electronic entries to replace the need for physical inventory, databases eliminate spatial limitations. Databases make it practical for SAs to offer buyers the opportunity to consider all possible options⁹⁸ with searches that could range across a virtually unlimited number of categories.⁹⁹ Furthermore, the electronic entries can be carefully

suggest that growing numbers have become averse to shopping due to lack of time); Daniel F. Spulber, *Clockwise: Customer Convenience is the Key to E-Commerce*, BUS. 2.0, Mar. 2000, at 212.

93. See *supra* notes 3–4; see also Bettman et al., *supra* note 81, at 189, 200 (“The difficulty of the choice problem faced by the consumer will increase with more options and attributes . . .”). Research has shown that shoppers prefer systems that provide more transparent information and reduce search costs, and that they need them most when they are constantly facing new sets of competing alternatives. See Lynch & Ariely, *supra* note 11, at 100, 102.

94. Scott Kirsner, *The Customer Experience*, NET COMPANY, Fall 1999, at 12, 18, (quoting Andrew Brooks), available at <http://www.fastcompany.com/nc/001/012.html>. Similarly, *U.S. News & World Report* appealed to readers with the 1984 advertisements, “With *US News* anything worth missing is already missing,” and “We give you the cream. Not the skim.” ADVERTISING AGE, Sept. 10, 1984, at 19.

95. This would represent their utility function. See JON VON NEUMANN & OSKAR MORGENSTERN, *THEORY OF GAMES & ECONOMIC BEHAVIOR* 15–31 (3d ed. 1953); NICHOLSON, *supra* note 18, at 45–47; Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U.L.REV. 630, 640–43 (1999); see also Matthew D. Adler & Eric A. Posner, *Rethinking Cost-Benefit Analysis*, 109 YALE L.J. 165, 191–92, 197–204 (1999).

96. This would avoid the common need to decide based on incomplete information. See Bettman et al., *supra* note 81, at 189.

97. Such a process should meet the standards for effectiveness set out in Payne et al., *supra* note 83, at 248. Because research indicates that even an attempted weighted adding system is likely to produce non-trivial errors, it is probably advisable for consumers using it to generate more than the single highest rated choice. See Widing & Talarzyk, *supra* note 89, at 139; see also *supra* notes 85–86.

98. See *supra* note 87. This helps consumers overcome the common problem of myopic decision frames, which often leads them to neglect consideration of desirable options. See Payne et al., *supra* note 83, at 251.

99. SAs do not need to worry about deciding which one or two places are the best ones for displaying their stock of an item, such as whether Stephen Sondheim’s musical creation *Sweeney Todd* should go with Broadway shows or operas, see Bernard Holland, *In ‘Sweeney,’ Words Drive Art Forms*, N.Y. TIMES, May 8, 2000, at E1, or whether a black author’s new book on his advocacy against racial preferences should go in “new arrivals,” “politics & government,” or “African-American interest.” See Ward Connerly,

formatted in rows and columns to facilitate quick, easy, and accurate sorting and to generate customized consideration sets of products.¹⁰⁰ Thus, databases have long been used in “non-inventory” markets, including real estate, travel, and financial securities, and increasing numbers of traditional retailers, such as Barnes and Noble, Borders, and outdoor goods merchant REI, even permit customers to search online product databases from within their stores.¹⁰¹

Meanwhile, the proliferation of entities offering credible performance evaluations — strongly stimulated by the Internet¹⁰² — enables databases to store data according to those formerly-more-difficult-to-search-by variables, which economists call “experience” and “credence” qualities of goods.¹⁰³ Experience qualities, such as how funny a film is, are those which generally require one to use a product before making an assessment.¹⁰⁴ Credence qualities, such as how perceptive a doctor, lawyer, or repair shop is, are difficult to evaluate even after repeated uses.¹⁰⁵

Brand names have long enabled manufacturers to communicate estimates of the experience and credence qualities of their products.¹⁰⁶

Where ‘Separate but Equal’ Still Rules, N.Y. TIMES, May 8, 2000, at A23 (arguing that some stores segregate books written by black authors).

100. Arranging data into well-defined rows and columns can dramatically improve the effectiveness of searches. See Alba et al., *supra* note 10, at 42, 44–45 (discussing “vast selection” and “screening”); Lisa Guernsey, *Revving Up the Search Engines to Keep the E-Aisles Clear*, N.Y. TIMES, Feb 28, 2001, at H10 (discussing software for storing search engine data).

101. See David D. Kirkpatrick, *Book Chain Takes Steps To Coordinate Online Sales*, N.Y. TIMES, Oct. 27, 2000, at C9; Bob Tedeschi, *Conventional Retailers Use Web to Improve Service*, N.Y. TIMES, Aug. 16, 1999, at C6. See generally ELECTRONIC SERVICES NETWORKS: A BUSINESS AND PUBLIC POLICY CHALLENGE (Margaret E. Guerin-Calvert & Steven S. Wildman eds., 1991) [hereinafter ELECTRONIC SERVICES NETWORKS].

102. See Mark Frauenfelder, *Revenge of the Know-It-Alls*, WIRED, July 2000, at 144; see also *infra* note 270.

103. The third type of product attributes are “search” qualities, which, like size and color, are easy to identify prior to a purchase. They are generally the ones discussed below in Section IV.A. See Alba et al., *supra* note 10, at 43; Michael R. Darby & Edi Karni, *Free Competition and the Optimal Amount of Fraud*, 16 J.L. & ECON. 67, 68–69 (1973); Phillip Nelson, *Information and Consumer Behavior*, 78 J. POL. ECON. 311, 312 (1970). Economic models built to study information searches generally omitted experience and credence qualities. See Paul Stern, *Blind Spots in Policy Analysis: What Economics Doesn’t Say About Energy Use*, 5 J. POL’Y ANAL. & MGMT. 200, 204 (1986).

104. These qualities are generally the ones discussed in Sections IV.B. & C.

105. See *id.*

106. This use of brand as a reference for real attributes is recognized as the most basic use of branding. See Martha R. McEnally & L. de Chernatony, *The Evolving Nature of Branding: Consumer and Managerial Considerations*, ACAD. MARKETING. SCI. REV., Feb. 1999, at 13 (discussing six stages of branding and noting that, in stage two, a brand

Consumers can also judge experience and credence qualities based on comments from friends and relatives.¹⁰⁷ Better yet, shoppers can rely on trusted experts, such as *Consumer Reports*¹⁰⁸ and any of the new Internet-based rating services,¹⁰⁹ thereby diminishing consumers' need to rely on brands,¹¹⁰ which represent the judgments of inherently biased manufacturers. Although consumers appear unwilling to expend significant effort to gather this data themselves,¹¹¹ SAs can now monitor these evaluations and store them in an accessible database format.

Currently, many consumers are willing to pay directly for buying guides like *Consumer Reports* and Michelin tour books as well as other editing services,¹¹² including those provided by travel agents, interior

serves as a reference for real attributes) (citing Mary Goodyear, *Divided by a Common Language: Diversity and Deception in the World of Global Marketing*, 38 J. MARKET RES. SOC. 105 (1996)); see also Tulin Erdem & Joffre Swait, *Brand Equity as a Signaling Phenomenon*, 7 J. CONSUMER PSYCHOL. 131 (1998); BHARAT N. ANAND & RON SHACHAR, BRANDS, INFORMATION, AND LOYALTY (Harv. Bus. Sch. Working Paper No. 00-069, July 2000), at http://papers2.ssrn.com/paper.taf?abstract_id=240792; ERIK BRYNJOLFSSON & MICHAEL D. SMITH, THE GREAT EQUALIZER? CONSUMER CHOICE BEHAVIOR AT INTERNET SHOPBOTS (MIT Sloan School of Management, July 2000), at <http://ebusiness.mit.edu/erik/TGE%202000-08-12.html>. For example, where a particular brand of shoe consistently provides good arch support and a roomy toe box, its brand can convert those "experience" attributes into "search" attributes. See Alba et al., *supra* note 10, at 44, (citing Terry Agins, *Go Figure: Same Shopper Wears Size 6, 8, 10, 12*, WALL ST. J., Nov. 11, 1994, at B1). Hence, when Walt Disney wanted to expand its film repertoire to include adult content without tarnishing the Disney brand's reputation for wholesome family entertainment, the studio created the Touchstone (1984) and Hollywood Pictures (1988) brands. See David J. Jefferson, *Disney Sets Third Film-Production Firm, Buoyed by Touchstone Division's Success*, WALL ST. J., Dec. 2, 1988, at B3. Similarly, pseudonyms permit writers to create different brands for their readers. See Donald E. Westlake, *A Pseudonym Returns From an Alter-Ego Trip, with Tales to Tell*, N.Y. TIMES, Jan. 29, 2001, at E1. Some research suggests that advertisements are actually more effective at communicating about experience qualities than actual sampling because the ads lead consumers to focus on the experience qualities, while sampling is apt to overwhelm them with search qualities. See Alice A. Wright & John G. Lynch, Jr., *Communication Effects of Advertising Versus Direct Experience When Both Search and Experience Attributes Are Present*, 21 J. CONSUMER RES. 708 (1995).

107. Trustworthiness probably explains the strong influence of information from non-expert friends in a domain where information from expert sources is often ineffective. See Stern, *supra* note 103, at 206, n.31. This is likely to increase with the ease of viral marketing. See *infra* note 484.

108. See *infra* note 276.

109. See *supra* note 102; *infra* note 270.

110. See Nicholas G. Carr, *Decoding Business: Bonfire of the Brands*, INDUSTRY STANDARD, Mar. 13, 2000, at 298.

111. See *supra* note 80.

112. "If users . . . can locate the information they need, they will pay for it. The emphasis of the whole information society shifts, then, from supply to *selection*." NAISBITT, *supra* note 3, at 24; see also Bruce Owen, *The Role of Print in an Electronic Society*, in COMMUNICATIONS FOR TOMORROW: POLICY PERSPECTIVES FOR THE 1980S

decorators,¹¹³ or even summer camp consultants.¹¹⁴ Buyers recognize the value of improving the quality of their choices and reducing their search time. They also realize that intermediaries generally serve the party that pays them.¹¹⁵ Two factors, however, have hindered the emergence of this SA model as a major category of profitable e-commerce entities.¹¹⁶ First, many firms have been providing forms of this service free of charge to build their business or earn advertising revenues, while other individuals and groups have been doing so for other reasons.¹¹⁷ Against this background, consumers have been less inclined to pay even small amounts for information that they have become accustomed to receiving free of charge.¹¹⁸ This should change, however, as free services become more cluttered with advertising¹¹⁹ or disappear in bankruptcy.¹²⁰ SAs may also train consumers to pay small amounts for advice by analogizing the payments to the cost of photocopying the information or tipping a gofer.

Second, while consumers might still be willing to pay consultants anywhere from fifty cents to a few dollars per transaction based on the incremental benefit of high quality information—namely, better choices

230 (Glen O. Robinson ed., 1978) (“[P]eople are willing to pay something to avoid the task of sifting data for themselves . . . in the Age of Information, editors assume an even greater importance; people will pay *not* to be deluged with unedited data.”); Jane Hodges, *Fools No More?*, BUS. 2.0, May 2000, at 222, 226 (noting that amateur analysts are offering advisory research reports for \$20 each and hundreds of customers are buying them). Upscale personal clothes shoppers in New York City charge a 20% commission, but that fee covers many ancillary services also. See Ruth La Ferla, *Fashion’s Well-Kept Secret*, N.Y. TIMES, Apr. 30, 2000, § 9, at 1; see also *infra* note 207.

113. See Julie V. Iovine, *The Secret World of Decorators: A “Good Eye,” Charging by the Glance*, N.Y. TIMES, Aug. 17, 2000, at F1 (discussing the fee structures of interior decorators); Elaine Louie, *Specifying the Amount of Green*, N.Y. TIMES, Aug. 17, 2000, at F10.

114. See Matthew Purdy, *Our Towns: Hiring a Guide Just to Find the Camp*, N.Y. TIMES, Feb. 20, 2000, § 1, at 39.

115. See EVANS & WURSTER, *supra* note 11, at 128–32; Jakob Nielsen, *The Case for Micropayments*, ALERTBOX (Jan. 25, 1998), at <http://www.useit.com/alertbox/980125.html>.

116. This is a model where the SA charges customers for providing valued information. See Michael E. Porter, *Strategy and the Internet*, HARV. BUS. REV., Mar. 2001, at 63, 76–77.

117. See *infra* Section IV.B.1.a.

118. See EVANS & WURSTER, *supra* note 11, at 103–04.; Jennifer Greenstein, *Content in Search of Profits*, INDUSTRY STANDARD, Dec. 11, 2000, at 98, 100 (reporting that “people just don’t want to pay for news and information”).

119. See Susan Stellin, *We Now Interrupt Your Browsing for This Commercial Message*, N.Y. TIMES, Dec. 18, 2000, at C34.

120. Companies that adopt unprofitable practices may temporarily undermine entire industries, but once they disappear, rational rules of profit and strategy should again prevail. Cf. Porter, *supra* note 116, at 64, 68, 72.

and decreased search time¹²¹ — relatively high billing costs may make it uneconomic to bill for such small amounts. This should change, however, as micro-payment technologies¹²² improve and make it practical to bill on a less than dollar-per-minute basis or to impose some other small surcharge.¹²³

III. ENSURING ACCESS TO ALL DESIRED OPTIONS

Some online shopping assistants, including Shopper.cnet.com, have followed the brick-and-mortar store model of only presenting products from which they can profit.¹²⁴ Others, like mySimon.com, however, have recognized the long-term value of all-inclusiveness. They realize that customers, particularly those with unusual preferences or those inclined to regret a missed opportunity, are likely to be drawn to a site that enables them to consider *all* of the most suitable options.¹²⁵ Thus, in the

121. See Bakos, *supra* note 87, at 1685, 1689; Isaac Erlich & Lawrence Fisher, *The Derived Demand for Advertising: A Theoretical and Empirical Investigation*, 72 AM. ECON. REV. 366 (1982); Ariel Rubenstein & Asher Wolinsky, *Middlemen*, 102 Q. J. ECON., 581, 591 (1987) (noting that “the middleman’s profitability . . . should vary directly with consumers’ rate of impatience”); Paul Krugman, *Reckonings: What Price Fairness?*, N.Y. TIMES, Oct. 4, 2000, at A35 (“Convenience, not price, is the selling point: I would buy those books from Amazon even if I were charged a couple of dollars extra.”); see also *supra* note 80.

122. See Jari Kytöjoki & Vesa Kärpijoki, *Micropayments — Requirements and Solutions* (Jan. 10, 2000), at <http://www.hut.fi/~vkarpijo/netsec99>; see also HANSON, *supra* note 62, at 344–45; Jeffrey Davis, *Spare Change Agents*, BUS. 2.0, Oct. 1999, at 204–14; Alexei Oreskovic, *Short Changed*, INDUSTRY STANDARD, July 10, 2000, at 223; Ari Weinberg, *Micropayments, Bigger Headaches*, INDUSTRY STANDARD, July 10, 2000, at 228; Nielsen, *supra* note 115.

123. See HAGEL & SINGER, *supra* note 6, at 40 (raising the possibility of a 2.5% fee, although it would also include payment for the services discussed in Section IV).

124. See Denise Caruso, *The Future of Online Commerce Must Be Built on Credibility and Yet Companies Continue to Squander the Public’s Trust*, N.Y. TIMES, Nov. 8, 1999, at C4; Hansell, *In Bots We Trust?*, *supra* note 61.

125. See EVANS & WURSTER, *supra* note 11, at 142; Alba et al., *supra* note 10, at 44 (predicting that the growth of online shopping is dependent on “vast selection”); Thomas Gilovich & Victoria Husted Medvec, *The Experience of Regret: What, When, and Why?*, 102 PSYCHOL. REV. 379 (1995); Stephen H. Hoch et al., *The Variety of an Assortment*, 18 MARKETING SCI. 527, 528–29 (1999); James Daly, *Sage Advice [Interview with Peter Drucker]*, BUS. 2.0, Aug. 22, 2000, at 134, 137 (deeming it critical for a firm to be the seller of all brands); Saul Hansell, *G.M. Proposes an Online Site for Car Sales*, N.Y. TIMES, Aug. 12, 2000, at C1 [hereinafter Hansell, *G.M. Proposes*]; Hansell, *In Bots We Trust?*, *supra* note 61; Andy Wang, *Even Offline Publications Try Giving It Away*, N.Y. TIMES CYBERTIMES (Jan. 27, 2000), at <http://www.nytimes.com/library/tech/00/01/cyber/articles/29free.html>. Several panelists at the Federal Trade Commission’s June 2000 business-to-business commerce (“B2B”) workshop stated that their B2B services would be open to all comers. See FEDERAL TRADE COMMISSION, ENTERING THE 21ST CENTURY: COMPETITION POLICY IN THE WORLD OF B2B ELECTRONIC MARKETPLACES § 3, at 16 &

fall of 1998, Barnes & Noble boasted in advertisements that its 4.6 million-plus-book database dwarfed the 3 million-book database offered by Amazon.com, and a website planned for 2001 promises to permit travelers to view many times the number of flights that they can now.¹²⁶ A wider breadth of options could also increase a website's potential advertising revenues.¹²⁷

A 1999 cover story in the *Harvard Business Review* calls SAs "navigators" and advises companies to assume that role themselves, even if it requires recommending competitors' products.¹²⁸ The article's authors advise that, to retain customers' trust and loyalty, firms must demonstrate their willingness to serve the client's best interests by navigating through all of cyberspace and beyond.¹²⁹ The major airlines adopted this strategy when they voluntarily included the flights of their competitors in their customer reservation systems.¹³⁰ Similarly, the retail website proposed by General Motors will include non-GM cars,¹³¹ and

n. 80 (Oct. 2001) [hereinafter FTC B2B Workshop], available at <http://www.ftc.gov/os/2000/10/b2breport.pdf>. The workshop record yielded little evidence of current exclusions from B2B. See *id.*

126. See *The Online Bookstore So Big, It Makes Amazon.com Look Tiny* [advertisement], N.Y. TIMES, Dec. 13, 1998, § 7 (Book Review), at 35; Amy Merrick, *Cheap Seats: Live Long and Prosper?*, WALL ST. J., Oct. 23, 2000, at R22.

127. Accepting ads might create a perception that the SA was biased toward the advertisers' products; however, many periodicals seem able to resist such pressures. See Karen Schoemer, *Making TV By Biting the Hand That Feeds It*, N.Y. TIMES, Apr. 16, 2000, § 2, at 30. But see Felicity Barringer, *Day of Contrition at The Los Angeles Times*, N.Y. TIMES, Oct. 29, 1999, at C2; Bernard Weinraub, *A Strained Relationship Turns Sour: Fox Studio Pulls Its Advertising to Punish Hollywood Trade Paper*, N.Y. TIMES, Oct. 18, 1999, at C18. This could be partially addressed if an SA refused ads for products included in its database, but that would probably eliminate most interested advertisers without eliminating the perception of bias towards products of the same or affiliated brand as the featured products. Alternatively, SAs might ask consumers to pay a service charge to finance the cost of comprehensive and unbiased coverage of a market segment. See *supra* text accompanying notes 121–23.

128. Philip Evans & Thomas S. Wurster, *Getting Real About Virtual Commerce*, HARV. BUS. REV., Nov.–Dec. 1999, at 85; see also EVANS & WURSTER, *supra* note 11.

129. See EVANS & WURSTER, *supra* note 11, at 113, 133; Alba et al., *supra* note 10, at 45 ("[C]onsumers will prefer retailers that freely provide . . . information and make cross shopping easy; therefore, isolationist vendors could be bypassed in the process.").

130. See Bakos, *supra* note 87, at 1686, 1690; Margaret E. Guerin-Calvert & Roger G. Noll, *Computer Reservation Systems and Their Network Linkages to the Airline Industry*, in ELECTRONIC SERVICES NETWORKS, *supra* note 101, at 145, 161. Note that this is the same reason that competing retailers in a particular market segment, e.g., antiques, often locate in the same neighborhood. See Nelson, *supra* note 103, at 323.

131. See Hansell, *G.M. Proposes*, *supra* note 125. Similarly, the Progressive Auto Insurance Company designed its television and radio commercials to highlight its practice of helping potential customers compare its rates to those of its competitors. "That's not what I would expect from an insurance company," says a surprised customer. "Well, maybe you should," responds the Progressive spokesman. See Suzanne Vranica,

“buyer” real estate agents have realized that knowledgeable home buyers would value the chance to expand their options to include the homes of sellers not offering to pay broker commissions.¹³²

Meanwhile, SAs should not find it too difficult to be comprehensive. Those in retailing already employ buyers to survey the Internet, trade shows, publications, and competing retailers to select from the universe of offerings. The cost to be comprehensive would only be the incremental expense of carefully noting all items already discovered and reviewed by the retailer’s buyer (including any rejected as inadequate for most consumers), which should generally not be terribly burdensome.¹³³ SAs could also adopt the approach of EveryCD.com, which offered free CDs to customers who identified titles missing from its database.¹³⁴ In addition, established SAs could expect that manufacturers and other sellers would eagerly contact them to promote new products.¹³⁵ Given the increased availability of second-hand items,¹³⁶ there would be no need to weed out discontinued products, and databases could even include items not “officially” for sale anywhere.¹³⁷ If many SAs were to

Progressive Changes Ad Agencies Leaving E.T.’s Fate Uncertain, WALL ST. J., June 17, 1999, at B14. The GM strategy clearly anticipated Amazon’s presumably multi-brand proposed car retail website. See Keith Bradsher, *Amazon.com Plans to Offer Cars Online*, N.Y. TIMES, Aug. 24, 2000, at C14; see also Bob Tedeschi, *Large Companies Try to Find Ways to Spread Internet Retailing Throughout Their Operations*, N.Y. TIMES, Oct. 16, 2000, at C14 (noting that Raytheon’s Boaters.com, a boating information and commerce site, features products of both Raytheon and its competitors).

132. See RAY WILSON, *BOUGHT, NOT SOLD: SINGLE AGENCY, BUYERS’ BROKERS, FLAT FEES, AND THE CONSUMER REVOLUTION IN REAL ESTATE* 112 (1998).

133. See Alba et al., *supra* note 10, at 42. This might not be the case, however, for items produced in myriad variations, like computers built to order by firms like Dell or customized cosmetics produced by Reflect.com. See Jennifer Couzin, *Building a Better Lipstick*, INDUSTRY STANDARD, Oct. 30, 2000, at 94.

134. See *Hear Us Out* [advertisement], N.Y. TIMES, Apr. 4, 1999, § 6 (Magazine), at 17.

135. Moreover, because database lists would be used for advising customers, rather than direct sales, they would not be affected by restrictions that some large manufacturers, like Sony, place on which of their products can be sold online. See Saul Hansell, *Amazon.com Gets Into Two New Businesses*, N.Y. TIMES, July 13, 1999, at C1.

136. Second-hand items might be available from online auctions or brick-and-mortar stores. See Leslie Kaufman, *They Can Get It For You Resale*, N.Y. TIMES, Apr. 26, 2000, at C1; see also Michelle Slatalla, *Net Pawnshops Say They’re Just the Ticket*, N.Y. TIMES, May 18, 2000, at G4.

137. Even unique items owned by a single individual could be regarded as “for sale” at some price, just as even executives content with their current employment may be persuaded to switch jobs or residents convinced to sell their homes. See Glenn Rifkin, *A High-Tech Headhunter Who Knows His Prey*, N.Y. TIMES, June 2, 1996, § 3, at 10; WILSON, *supra* note 132, at 112–13.

compete in a market, consumers might also desire a “meta” SA to help them select among SAs.¹³⁸

A. Prohibiting Misleading Claims of Coverage

Consumer demand for a comprehensive database of product information would likely lead at least one SA to provide it. A problem arises, however, if SAs can mislead consumers about the comprehensiveness of their databases. While current advertising guidelines may discourage such exaggerations,¹³⁹ enforcement bodies might tolerate much looser uses of phrases like “all-inclusive” and “comprehensive” as ordinary puffing,¹⁴⁰ especially given the apparent impracticality of monitoring *all* relevant options in a global product market.¹⁴¹

Ideally, trade associations would help shoppers identify truly “all-inclusive” SAs by formulating and publicizing reasonably precise and effective definitions of the multiple variations of the term.¹⁴² Alternatively, one would expect that consumer advocates like *Consumer Reports* might step up to the task and designate a seal indicating that an SA offered “comprehensive coverage,”¹⁴³ relying on government

138. These “meta” SAs could specialize in one market, e.g., helping investors select a mutual fund, or one market category, e.g., those related to buying a home (brokers, mortgage companies, inspectors, etc.) or planning a wedding (caterers, florists, travel agents, etc.), and helping consumers find the best SA for the market segments in that category. See Mohanbir Sawhney, *Making New Markets*, BUS. 2.0, Mar. 2000, at 202.

139. Advertisers must have a reasonable basis for objective product claims (express or implied) before the claims are made. See Policy Statement Regarding Advertising Substantiation Program, 49 Fed. Reg. 30,999 (Aug. 2, 1984). Advertising that lacks adequate substantiation is considered deceptive.

140. See *In re California Dental Assn.*, 121 F.T.C. 190, 318 (1996). (“‘Mere puffing’ deceives no one and has never been subject to regulation.”).

141. Certainly, consumers would not interpret the terms literally for markets such as antiques and artwork, which include many singular, non-mass market products.

142. Sometimes “complete” may be defined as significantly less than might appear to be complete. See Nicholas Wade, *2 Groups in DNA Race Differ on Fixing Project’s Finish Line*, N.Y. TIMES, Apr. 11, 2000, at A27. Comprehensiveness for SAs might be defined by reference to trade association websites. Each relevant association could offer to accept and post all product options submitted by suppliers in its product market. Any SA that included all of the options posted on the relevant websites would be entitled to claim that its database was comprehensive “as of [date].” The trade associations or others would be expected to try to resolve questions like how to apply this approach to products like personal computers, which are offered in thousands of customized variations. See *supra* note 133.

143. The electronic marketplace has seen the development of a number of third party seal programs in other areas, such as privacy. See Laurie J. Flynn, *Web Privacy Group to Offer a Seal of Approval*, N.Y. TIMES, Apr. 3, 2000, at C8; Ladouceur, *supra* note 23, at 302; FTC Children’s Online Privacy Protection Rule, 65 Fed. Reg. 11947 (2000)

assistance for preventing misleading claims concerning these terms.¹⁴⁴ Absent that, a government agency might set reasonable criteria for such a seal.¹⁴⁵ Meanwhile, comprehensive SAs could simultaneously offer shoppers filtered lists of those items that met the SAs' quality thresholds.¹⁴⁶

B. Imposing Access Rules on Dominant Firms

Although some describe the e-commerce environment as a "frictionless" market,¹⁴⁷ other experts observe the danger of entry barriers.¹⁴⁸ In particular, the compilation of databases appears to have some network effects¹⁴⁹ along with other characteristics of natural monopolies.¹⁵⁰ Still, whether SAs emerge with substantial market

(discussing PrivacyBot.com's privacy seal proposal). For other examples of seals, see *infra* notes 240, 259. Databases that included all items, but left many in a non-searchable or less-searchable format, could be labeled to indicate their lesser degree of comprehensive coverage. Still these would allow shoppers to discover whether an item the SA didn't recommend had been rejected or simply not yet evaluated.

144. See Douglas W. Hyman, *The Regulation of Health Claims in Food Advertising: Have the FTC and the FDA Finally Reached a Common Ground?*, 51 FOOD & DRUG L.J. 191 (1996). Yet the government may lack the resources to police such seals. See Marian Burros, *Eating Well: The Truth Behind the Feel-Good Labels*, N.Y. TIMES, Mar. 14, 2001, at F2 ("Federal law requires all labeling and advertising to be 'truthful and not misleading,' but regulatory agencies admit they do not have the resources to monitor compliance unless someone discovers life-threatening claims."); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1453-54 (1999).

145. Cf. *infra* text accompanying note 223.

146. SAs could offer to filter out products according to multiple standards, including screening out products whose sale was prohibited as unsafe by consumer product safety laws. In fact, the Consumer Product Safety Commission wants to encourage such services. See David Stout, *2 Auction Sites on Web Accede to Federal Product Safeguards*, N.Y. TIMES, Apr. 1, 2000, at A7.

147. See GATES, *supra* note 12.

148. See FTCB2B WORKSHOP, *supra* note 125, § 3, at 16-18. Hagel and Singer "are suspicious of claims that the Internet will systematically lower barriers to entry," predicting instead that, "in general, the Internet will lead to substantial concentration of business activity over time." HAGEL & SINGER, *supra* note 6, at xii. Furthermore, one FTC official has asked, "if entry were simple, wouldn't we expect several rivals to Amazon.com to effectively enter the market? And if entry is so simple, why do traditional firms acquire Internet sites, rather than entering with their own sites?" See David Balto, *Emerging Antitrust Issues in Electronic Commerce*, 19 J. PUB. POL'Y & MARKETING 277, 279 (2000).

149. See FTCB2B WORKSHOP, *supra* note 125, § 3, at 32 n.153 and accompanying text; see also *supra* note 33.

150. Compiling an SA database would involve a high fixed cost but a minimal marginal cost of selling its use.

power¹⁵¹ will depend on many factors with respect to both supply and demand.¹⁵² On the supply side, market power is more likely to arise in market segments where maintaining an accurate database is more expensive.¹⁵³ On the demand side, it will depend on whether there are enough buyers to support the cost of maintaining two or more databases.¹⁵⁴ In that vein, the development of more user-friendly consumer interfaces, particularly voice recognition technologies,¹⁵⁵ could dramatically expand demand.¹⁵⁶ Some market segments could be winner-take-all markets,¹⁵⁷ although specialized market niches might arise and limit the market power of the dominant generalist SA.

Even if SAs were likely to enjoy substantial market power, suppliers could be left to their own devices to secure access to dominant SAs.¹⁵⁸

151. As the Fifth Circuit observed in a case concerning a real estate multi-listing service, the question “is not whether [the multiple listing service] has a monopoly in the relevant market; rather, we must determine whether [it] is of sufficient economic importance that exclusion results in the denial of the opportunity to compete effectively on equal terms.” *United States v. Realty Multi-List*, 629 F.2d 1351, 1373 (5th Cir. 1980).

152. See *FTCB2B WORKSHOP*, *supra* note 125, § 3, at 19–22.

153. This development may occur because rapid innovation continuously produces new and upgraded products that are not easy to characterize in objective measurements.

154. If market demand will not support two firms operating at “minimum efficient scale” (“mes”) — the lowest output necessary to realize all economies that can diminish average costs — there is a good chance that a natural monopoly will arise. See *Alaska Airlines, Inc. v. United Airlines*, 948 F.2d 536, 548 (9th Cir. 1992); see also Jonathan D. Glater, *Management—Wanted: One C.E.O., Ready to Work*, N.Y. TIMES, Dec. 27, 2000, at C1 (reporting that the expense of maintaining databases has led to consolidation in the executive recruiting industry).

155. For background information on voice recognition technologies, see Mark Lucente, *Conversational Interfaces for E-Commerce Applications*, COMM. ACM, Sept. 2000, at 59, and the remainder of the special section on conversational interfaces, COMM. ACM, Sept. 2000, at 24–73. See also Peter S. Goodman, *Hello, Internet? Talking Web Sites? Next Challenge*, WASH. POST, Oct. 16, 2000, at A1; Michelle V. Rafter, *Hearing Things*, INDUSTRY STANDARD, Sept. 11, 2000, at 204; *I Can’t Hear You*, INDUSTRY STANDARD, Sept. 11, 2000, at 206; *Talk to Me*, INDUSTRY STANDARD, Sept. 11, 2000, at 208.

156. See David Orenstein, *Vision: Q&A With Gordon Moore*, BUS.2.0, Oct. 10, 2000, at 240, 243 (“The one application I see which [will make] a qualitative difference in the way people use computers is really good speech recognition.”).

157. Research on website users suggests that this may be likely. See LADA A. ADAMIC & BERNARDO A. HUBERMAN, *THE NATURE OF MARKETS IN THE WORLD WIDE WEB*, (Working Paper, May 6, 1999), at http://papers.ssrn.com/paper.taf?abstract_id=166108. Concerning winner-take-all markets, see *supra* note 33; see also ROBERT H. FRANK & PHILIP J. COOK, *THE WINNER-TAKE-ALL SOCIETY: WHY THE FEW AT THE TOP GET SO MUCH MORE THAN THE REST OF US* (1996).

158. Thus the FCC’s Cable Services Bureau and chairman strongly advocated regulatory restraint in regard to access to cable television broadband capacity. See William E. Kennard, *How to End the World Wide Wait*, WALL ST. J., Aug. 24, 1999, at A18 (“We cannot regulate against problems that have yet to materialize in a market that

The market pressures for full coverage, discussed above,¹⁵⁹ and fear of monopoly regulation¹⁶⁰ might lead SAs to include the products of all suppliers, while simultaneously offering a filtered version of "preferred" options.¹⁶¹ On the other hand, past refusals of media owners to grant access in other information industries, for economic¹⁶² and other reasons,¹⁶³ suggest that some types of access rules might be justified to regulate SAs.

In fact, the exclusionary actions of the publisher of the Official Airline Guide ("OAG") led the Federal Trade Commission ("FTC") to bring suit to prevent the OAG from unfairly excluding some airlines from the guide.¹⁶⁴ Comparable non-discriminatory "common carrier" access rules have also been imposed on others with market power including telephone networks and the postal service.¹⁶⁵ More recently,

has yet to develop."); Applications for Consent to the Transfer of Control of Licenses and Section 214 Applications from Tele-Communications, Inc. to AT&T Corp., 14 F.C.C.R. 3160, 3207 (1999). The FCC did, however, open discussion of the issue when it issued High-Speed Access to the Internet Over Cable and Other Facilities, 15 F.C.C.R. 19287 (2000).

159. See *supra* text accompanying notes 125–29.

160. See ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 238–39 (1983) ("Newspapers, as they moved into the status of monopolies, had the wisdom to defuse hostility by acting in many respects like a common carrier.").

161. See *supra* note 146. Their ability to provide editorial services to customers who desired them would not be abridged. See Mark S. Nadel, *Editorial Freedom: Editors, Retailers, and Access to the Mass Media*, 9 HASTINGS COMM. & ENT. L.J. 213, 229–32 (1987).

162. Note, for example, the May 2000 decision by Time-Warner to black-out the programming of media titan Disney's ABC broadcast television network in New York, Los Angeles, and other cities. See *Editorial: The Blackout Battle*, N.Y. TIMES, May 2, 2000, at A26; see also *Home Placement Serv. v. Providence Home Journal Co.*, 682 F.2d 274 (1st Cir. 1982); *Byars v. Bluff City News*, 609 F.2d 843 (6th Cir. 1979).

163. Cf. Rene Sanchez, *Owner's Taboos Shape the News*, WASH. POST, Apr. 14, 2000, at A3; Evelyn Nieves, *Local Newspapers Become the Story*, N.Y. TIMES, Mar. 19, 2000, § 1, at 24 (discussing the decision of a Southern California publisher of local gazettes to exclude stories "promoting the gay lifestyle or abortion").

164. See *Official Airline Guides, Inc. v. F.T.C.*, 630 F.2d 920 (2d Cir. 1980). Even though the courts found that Congress had not given the FTC authority to take such action, a later case upheld the rules adopted by the former Civil Aeronautics Board ("CAB") to remedy biased displays on the airlines' Customer Reservation Systems ("CRSs"). Biased displays were abolished by a CAB regulation requiring unbiased primary display of flights. See, e.g., *Carrier-Owned Computer Reservations Systems*, 14 C.F.R. § 255 (1999). See also *In re Air Passenger Computer Reservation Sys. Antitrust Litig.*, 694 F. Supp. 1443, 1450 (C.D. Cal. 1988), *aff'd sub nom. Alaska Airlines, Inc. v. United Airlines, Inc.*, 948 F.2d 536 (9th Cir. 1991); *United Airlines, Inc. v. Civil Aeronautics Bd.*, 766 F.2d 1107, 1110 (7th Cir. 1985) (upholding CAB regulations). See generally Steven S. Wildman, *The Economics of Industry-Sponsored Search Facilitation*, in *ELECTRONIC SERVICES NETWORKS*, *supra* note 101, at 56, 64–66, 74–75.

165. Local public telephone networks and the U.S. Postal Service are both subject to

the fear of exclusionary practices by popular travel websites has led government agencies to investigate,¹⁶⁶ and it appears to be one of the primary reasons that British Airways created its own website.¹⁶⁷

While regulations that burden innovation by attempting to micro-manage could be counterproductive, when SAs enjoy substantial market power, clear, general, pro-competitive, "non-discrimination" access rules might be appropriate.¹⁶⁸ They probably represent a more efficient alternative to private lawsuits and non-expert courtrooms for resolving access rules in this specialized area.¹⁶⁹ It might also be worthwhile to

common carrier rules that prevent them from limiting access to a chosen set of alternatives. See POOL, *supra* note 160, at 71–107; see also 47 U.S.C. § 251 (2000) (requiring local exchange carriers to interconnect). A non-discriminatory, competitive, leased access system for cable television would have eliminated the opportunity for cable system operators to exercise gatekeeper bias. See Mark S. Nadel, *COMCAR: A Marketplace Cable Television Franchise Structure*, 20 HARV. J. ON LEGIS. 541 (1983). Instead, however, cable operators were able to secure more limited, partial common carrier rules. See *infra* note 168.

166. The Department of Transportation has reopened a pending rulemaking on whether its CRS rules should apply to Internet versions of CRS. See Computer Reservation Systems (CRS) Regulations, 65 Fed Reg. 45,551 (July 24, 2000) (to be codified at 14 C.F.R. pt. 255).

167. See Michael Learmonth, *British Air Fights Back*, INDUSTRY STANDARD, May 1, 2000, at 96. It may fear the travel site Orbitz, although that entity appears to be having its own troubles. See Jennifer Couzin, *Orbitz's Slow Takeoff*, INDUSTRY STANDARD, June 26, 2000, at 94. Its start date has been delayed until Summer 2001. See *Orbitz, A Travel Web Site, Postpones Start*, N.Y. TIMES, Sept. 9, 2000, at C3.

168. In addition to the non-discriminatory requirements, discussed *supra* note 165, partial access rules could facilitate government efforts to monitor the exercise of abusive market power. Examples of such rules include laws that require cable television system operators to provide access to local broadcasters and to other unaffiliated third parties via leased access channels. See 47 U.S.C. §§ 534–535 (2000) (upheld in *Turner Broad. Sys., Inc. v. F.C.C.*, 520 U.S. 180 (1997)); 47 U.S.C. § 532(b) (2000). Such "must carry" rules also apply to direct broadcast satellites ("DBS"). See 47 U.S.C. § 338 (2000). Other media versions of such access rules include the "50-50" rule, which the FCC proposed in 1965 and which would have required that a television network sell at least 50% of the time in its broadcast day to advertisers and others, giving them control. See Notice of Proposed Rulemaking, No. 12,782, 45 F.C.C. 2146, 2164 (1965). The FCC also imposed prime time access rules, limiting the networks to broadcasting no more than three hours of network programming between the hours of 7 p.m. and 11 p.m. See 47 C.F.R. § 73.658(k) (1981), *repealed by* Report and Order, Review of the Prime Time Access Rule, 11 F.C.C.R. 546, 583–86 (1995). The merger conditions that the FTC secured in connection with the AOL/Time Warner merger are another example of such access rules. See Press Release, Federal Trade Commission, FTC Approves AOL/Time Warner Merger with Conditions (Dec. 14, 2000), available at <http://www.ftc.gov/opa/2000/12/aol.htm>.

169. *But see* PETER W. HUBER, LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM (1997) (advocating regulation by common law).

begin considering how to prevent database operators with monopoly power from tying the use of their databases to other services.¹⁷⁰

C. Combating Efforts to Deny Buyers Options

1. Enabling Consumers to Employ Effective Aggregators

The emergence of “aggregators,” firms that offer consumers lists of options aggregated from multiple primary sources, would appear to be in the public interest. Yet at least some sources have attempted to deny aggregators the right to use the information the former publish publicly. For example, the National Association of Realtors (“NAR”) has fought efforts by Microsoft’s HomeAdvisor.com to use NAR’s affiliate, Realtor.com, as a source for listings of homes for sale.¹⁷¹ In addition, eBay fought efforts by both Auctionwatch and Bidder’s Edge to aggregate data about the offerings of auction sites and even obtained an injunction preventing Bidder’s Edge from repeatedly querying its website for auction listings¹⁷² when technical solutions did not work.¹⁷³

170. See *infra* text accompanying notes 352–54.

171. See Jayson Blair, *Real Estate Commissions Endure a Web Assault*, N.Y. TIMES, Aug. 20, 2000, § 2, at 4 (“One of our central goals is to keep the Realtor at the center and integral to the real estate transaction.”); Jennifer Oldham, *Top Internet Real Estate Site Faces Antitrust Probe*, L.A. TIMES, Apr. 26, 2000, at A1 (discussing a U.S. Justice Department investigation into Homestore’s website Realtor.com and Homestore’s efforts to deny its listings to competitors including HomeSeekers.com by paying for exclusivity); cf. Jerry Guidera, *U.S. Widens Inquiry of Homestore.com, Reviewing Bid for Cedent’s Move.com*, WALL ST. J., Nov. 7, 2000, at A4; John R. Wilke & Tristan Mabry, *Virtual Realty: Homestore.com Uses Its Lock on Listings to Widen Realtor Net*, WALL ST. J., Aug. 6, 1999, at A1.

172. See *eBay, Inc. v. Bidder’s Edge, Inc.*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000). The court’s decision, however, was based primarily on its findings of potential congestion. The court found that Bidder’s Edge queried eBay approximately 100,000 times per day, representing more than 1% of all queries. *Id.* at 1063. The court observed that “if [Bidder’s Edge] is allowed to continue to crawl the eBay site, it may encourage frequent and unregulated crawling to the point that eBay’s system will be irreparably harmed.” *Id.* at 1067. Thus, the court found sufficient evidence of a trespass. Soon after the injunction, Bidder’s Edge shut down its website. See Troy Wolverton, *Bidder’s Edge Pushes Web Site Over Cliff*, CNET NEWS.COM (Feb. 15, 2001), at <http://news.cnet.com/mews/0-1007-202-4834126.html>. The issue of congestion is discussed below in Section IV.D.

173. While there is no doubt that eBay can use a robots.txt file to ask robots to keep off its website, its motivations for its further efforts to stymie Bidder’s Edge and Auctionwatch.com may have been to frustrate competition. See Matt Richtel, *eBay Raises Stakes in Auction Dispute*, N.Y. TIMES CYBERTIMES (Nov. 4, 1999), at <http://www.nytimes.com/library/tech/99/11/cyber/articles/05auction.html>. Thus the U.S. Department of Justice was examining such practices. See John Wilke, *eBay’s Efforts to Block “Bots” Draw Scrutiny*, WALL ST. J., Feb. 4, 2000, at A3.

Some online retailers have made comparable efforts to block access by price-searching shopping bots.¹⁷⁴

Many database compilers have focused their attention on Congress, where two bills were introduced in the House in 1999 — H.R. 354 and H.R. 1858 — to protect database compilers against unauthorized copying.¹⁷⁵ Those bills responded to a 1991 Supreme Court decision, which clearly stated that the copyright law does not grant a party the right to prevent others from using its collection of unoriginal factual data, simply because of the considerable “sweat” expended to compile the information.¹⁷⁶ Current copyright law only protects the novel aspect of such a presentation.

H.R. 1858 would have prohibited firms from copying data from a compiler and selling virtual copies of it in competition with that compiler. This prohibition would seem to have done little harm to consumers, as the data affected is already generally available to them free of charge. Meanwhile, the bill might have stimulated additional compilations of useful databases for consumers — filled with the descriptive data discussed below¹⁷⁷ — by preventing mere copiers from siphoning away the attention of buyers and the associated advertising revenues. Over the long run, this might have improved consumer welfare.¹⁷⁸ H.R. 1858 also would have permitted third parties to mine

174. See Lynch & Ariely, *supra* note 11, at 84.

175. H.R. 354, the Collections of Information Anti-Piracy Act, was sponsored by Rep. Howard Coble. H.R. 1858, the Consumer and Investor Access to Information Act, was sponsored by Rep. Thomas Bliley. Supporters of such legislation included the New York Stock Exchange and the American Medical Association, as well as real estate agents and eBay. Opponents included the Chamber of Commerce, Consumers Union, research librarians, and Charles Schwab. See David E. Rosenbaum, *Database Legislation Spurs Fierce Lobbying*, N.Y. TIMES, June 5, 2000, at A14.

176. See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991). The courts could characterize “real time” prices and inventory status as “hot news.” See *Int'l News Serv. v. Assoc. Press*, 248 U.S. 215 (1918). That position, however, is questionable today. See *id.*, 248 U.S. at 248 (Brandeis, J., dissenting); *NBA v. Motorola, Inc.* 105 F.3d 841, 847–48, 853 (2d Cir. 1997); *Wendt v. Host Int'l*, 125 F.3d 806 (9th Cir. 1997); *White v. Samsung Elecs. Am., Inc.*, 989 F.2d 1512, 1520 (9th Cir. 1992) (Kozinski, J., dissenting).

177. See *infra* Section IV.B.

178. See Yochai Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 BERKELEY TECH. L.J. 535 (2000). Benkler finds that H.R. 1858 is directed reasonably and precisely towards the quasi-free rider harm and thus is most likely socially beneficial as well as constitutional. He finds that it provides protection comparable to that upheld in *ProCD v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996) with respect to a shrinkwrap contract; see also Council Directive 96/9/EC of 11 March 1996 on the Legal Protection of Databases, 1996 O.J. (L 77) 20 [hereinafter European Directive].

existing databases to produce *substantially enhanced* databases, such as those composed by aggregators.

H.R. 354 would have provided database owners with much stronger property rights to their data. In addition to prohibiting uses by pure copiers, H.R. 354 would have prohibited many uses by true aggregators¹⁷⁹ and others developing innovative, enhanced services. In addition to concerns about its constitutionality,¹⁸⁰ H.R. 354 raises some major policy questions. By preventing others from using the data collected to build innovative and substantially enhanced databases to serve consumers, it would have, to some extent, hindered the flow of publicly available information about competing products, which is necessary for a free market economic system to function most effectively.¹⁸¹ In addition, granting fact collectors strong intellectual property rights could well discourage new innovations in providing access to those facts.

179. Bidder's Edge claimed to have aggregated data from 100 different websites. See *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058, 1062 (N.D. Cal. 2000).

180. One scholar has found strong reasons for concluding that H.R. 354 would be an unconstitutional violation of both the First Amendment and the Constitution's implied limit on the intellectual property rights that Congress can confer. See Benkler, *supra* note 178. The First Amendment problem arises because the Supreme Court has stated that the First Amendment does not permit facts to be copyrighted. See *Feist*, 499 U.S. at 344–45; *Harper & Row v. Nation Enter.*, 471 U.S. 539, 556, 558 (1985) (stating that the First Amendment provides an “unfettered right to copy any factual information revealed in [the original]” as long as this does not involve copying creative expression). This prohibition would presumably apply to any other property rights in facts. See Eugene Volokh, *Freedom of Speech, Information Privacy, and the Troubling Implications of a Right to Stop People From Speaking About You*, 52 STAN. L. REV. 1049, 1065–66 (2000). If the compilers of facts could control their use by other value added competitors, then historians and other academic writers would be empowered to charge fees to their students and colleagues who built on their work. See *id.* at 1066. Similarly, the courts have recognized the right to use a trademarked product's name despite the federal trademark dilution statute. See *id.* at 1067 (citing *New Kids on the Block v. News Am. Publ'g, Inc.*, 971 F.2d 302, 308 (9th Cir. 1992)); Federal Trademark Dilution Act of 1995, 15 U.S.C. §§ 1125(c)(1), (c)(4) (1995). The limits of Congressional authority to create intellectual property rights arise from the *limited* power that the Constitution's patent and copyright clause gives to Congress. See U.S. CONST. Art. I, § 8, cl.8; see also *infra* note 455; Benkler, *supra* note 178.

181. See *Va. State Bd. of Pharm. v. Va. Citizens Consumer Council*, 425 U.S. 748, 765 (1976) (“So long as we preserve a predominantly free enterprise economy, . . . [t]he free flow of commercial information is indispensable.”); 44 *Liquormart, Inc. v. Rhode Island*, 517 U.S. 484, 512 (1996) (Stevens, J., concurring); *Rubin v. Coors Brewing Co.*, 514 U.S. 476, 481–82 (1995); JAMES E. BESSEN & ERIC MASKIN, SEQUENTIAL INNOVATION, PATENTS, AND IMITATION (MIT Dept. of Economics Working Paper No. 00-01, 2000), available at http://papers.ssrn.com/paper.taf?abstract_id=206189; Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 492–93 (1981); see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 cmt. B; Volokh, *supra* note 180, at 1070–71.

Scholars and policymakers recognize the advantages of limiting the intellectual property rights provided by legislation.¹⁸² Only when and if new technologies encourage conduct that threatens the economic viability of valued existing or potential future enterprises would there seem to be justification for modifying the associated property rights.¹⁸³ At present, however, this does not appear to be the case with respect to factual data about products.¹⁸⁴ Absent congestion, the current intellectual property laws, supplemented by legislation like H.R.1858, would seem to provide sufficient incentives for the creation and use of an optimal level of databases.¹⁸⁵

Serving sellers. Real estate brokers and eBay have the ability to obtain full compensation for any valuable services they provide to sellers, including charging for advising sellers on how to market their

182. See Volokh, *supra* note 180. The economic efficiency of limiting creators' rights to their intellectual property is recognized by economists of all stripes. See, e.g., SENATE SUBCOMM. ON PATENTS, TRADEMARKS, AND COPYRIGHTS OF THE SENATE COMM. ON THE JUDICIARY, 85TH CONG., AN ECONOMIC REVIEW OF THE PATENT SYSTEM 89 (Comm. Print 1958) (prepared by Fritz Machlup) [hereinafter Machlup] ("None of the empirical evidence at our disposal and none of the theoretical arguments presented either confirms or confutes the belief that the patent system has promoted the progress of technical arts and the productivity of the economy."); Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyrights in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 322 (1970); William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 325-27, 344-46 (1989); see also LESSIG, *supra* note 24, at 130-35; Maureen A. O'Rourke, *Shaping Competition on the Internet: Who Owns Product and Pricing Information*, 52 VAND. L. REV. 1965 (2000).

183. Such circumstances may exist regarding the development of Napster. See *A&M Records v. Napster, Inc.*, 114 F. Supp. 2d 896 (N.D. Cal. 2000). This also appears to be the justification for the five-part "hot news" category of protection of facts articulated in *NBA v. Motorola*, 105 F.3d 841, 852-53 (2d Cir. 1997); see also O'Rourke, *supra* note 182, at 1988; Maureen O'Rourke, *Property Rights and Competition and the Internet: In Search of an Appropriate Analogy* (Jan. 2001) (unpublished draft, on file with author).

184. Many brick-and-mortar retailers, including Bloomingdales, Circuit City, and Marshalls, welcome customer efforts to compare their prices and offerings to those of their competitors, as long as this does not cause congestion or other inconveniences to actual customers. See Barbara B. Buchholz, *If the Price is Right, Do You Have a Right to Know?*, N.Y. TIMES, Mar. 23, 1997, § 3, at 11. On the other hand, many stores do eject professional shoppers and competitors when they discover them. See Peter Finn, *At Best Buy, An Arresting Price Policy*, WASH. POST, Feb. 28, 1997, at A1. See also *Culhane v. State*, 668 S.W.2d 24 (Ark. 1984) (upholding the use of a criminal trespass statute to prosecute comparison shoppers asked to leave the premises of a retail store); *Mosher v. Cook United, Inc.*, 405 N.E.2d 720 (Ohio 1980) (same), discussed in O'Rourke, *supra* note 183.

185. See Susan DeSanti, *The Intersection of Antitrust and Intellectual Property Issues: A Report from the FTC Hearings, Remarks for the Business Development Association Conference on Antitrust for High-Tech Companies* (Feb. 2, 1996), available at <http://www.ftc.gov/speeches/other/desanti1.htm>.

properties and for posting their information in an online database.¹⁸⁶ EBay can earn its fees by providing a superior auction mechanism, in terms of rules and execution. Additional publicity via aggregators should help sellers and those earning commissions from a sale,¹⁸⁷ assuming that navigators do not create congestion problems.¹⁸⁸

Serving buyers. To the extent that eBay wants to earn the advertising revenues from repeated buyer visits to its website, it seems fair to expect it to offer the form of displays that buyers want. If auction buyers, like travel agents, prefer one-stop aggregated lists of offerings in a category,¹⁸⁹ then, absent unreasonable congestion problems,¹⁹⁰ they should be permitted to obtain them. Accordingly, eBay should consider adopting an aggregator's model by including data from competing auction sites.¹⁹¹ While this would eliminate one reason for sellers to use eBay and might lead to the loss of some sales to competing auction sites, the emergence of aggregators seems to be inevitable as well as in the public interest.¹⁹² Both sellers and their exclusive agents should want

186. See Karen J. Bannan, *Brokers Find a Niche Escorting Novices Into the World of eBay*, N.Y. TIMES, May 4, 2000, at G7 ("[One eBay broker] charges a flat rate listing fee of \$10 and a 25 percent commission on each item's sale price"); Lisa J. Frisella, *Department of Real Estate*, CAL. REG. L. REP., Winter 2000, at 187, 189.

187. See *An Open Letter to eBay Sellers* [advertisement], N.Y. TIMES, Oct. 7, 1999, at G5. Real estate agents with the standard "exclusive" arrangements should benefit too because, under the dominant "exclusive right to sell" arrangement, the listing broker receives a commission regardless of who sells the property during the listing period. See WILSON, *supra* note 132, at 282.

188. While sellers on eBay might prefer that buyers did not have easy access to options from other auctions, it is certainly not in the public interest to empower eBay to help keep buyers ignorant. Admittedly, aggregators would diminish the comparative advantage of the dominant firm, in terms of reaching more buyers than others, and this diminution would reduce the incentive to become the dominant firm in the industry. Yet, as noted above, it is not clear that such a lesser reward is disproportionate to the advantage policymakers have set by establishing the limited terms of patents, particularly in light of the network effects that aid the dominant firm.

189. See Sally McGrane, *Auctions Creep Into All Kinds of Sites (Because They're Fun)*, N.Y. TIMES, Mar. 29, 2000, at H33.

190. See *supra* notes 172–73; see also *infra* Section IV. D (discussing congestion).

191. See *supra* text accompanying notes 128–29.

192. See *supra* notes 128–29 and accompanying text. Real estate agent members of NAR who represent buyers might claim exclusive access to their association's database on the grounds that their dues finance it, even after it is available online. That has been the effect of traditional real estate broker practices. See Arthur D. Austin, *Real Estate Boards and Multiple Listing Systems as Restraints of Trade*, 70 COLUM. L. REV. 1325 (1970). But see John E. Lopatka & Joseph J. Simons, *Real Estate Multiple-Listing Services and Antitrust Revisited*, in ELECTRONIC SERVICES NETWORKS, *supra* note 101, at 206. Yet that rationale is severely flawed. As discussed above, the compilation of the realtor.com database should be recognized as attributable to sellers and *seller* agents, financed by commissions agreed to by sellers. Buyer agents have an argument for

maximum exposure for their offerings to all bona fide potential buyers and buyer agents, just as if the databases were catalogues. Against this background, it seems appropriate for policymakers to scrutinize Realtor.com's "Golden Alliance" program providing cash payments to MLSs for *exclusive* rights to post their listings,¹⁹³ effectively prohibiting the latter from providing listing data to competing national real estate websites.¹⁹⁴

2. Licensing and Other Government Restraints on Choice

Customer choices are also limited by government policies, such as laws hindering consumers from employing unlicensed providers of a service.¹⁹⁵ For example, legal secretaries or paralegals who clearly disclose their non-lawyer status, but offer to provide minimal legal assistance at a low price, are prohibited from doing so without a professional license. While there is no doubt that consumers benefit from being able to identify which service providers or products have met established quality standards, it is not clear that there is any benefit to denying them the option to assume the risk of overriding those standards. In fact, many critics claim that licensing laws are designed primarily to protect the economic interests of members of professional groups rather than the public;¹⁹⁶ that unlicensed providers often provide comparable

protecting their rights to data that they compile, but they do not appear to contribute to seller listings. Rather, buyer agents who discover special information about a home probably use it to enjoy an advantage in their efforts to find a buyer, or if adding the data to the listing would be particularly helpful, they might offer it to the seller (or seller's agent) in return for some other consideration.

193. See *supra* note 171.

194. See Kevin Crowston & Rolf T. Wigand, *Real Estate War in Cyberspace: An Emerging Electronic Market?*, ELECTRONIC MARKETS, Feb. 1999, at 37, available at http://www.electronicmarkets.org/netacademy/publications.nsf/all_pk/1334. MLS organizations that do not sign up for the program will not receive cash payments. See *id.* The program also incorporated an 18-month transitional period.

195. See Walter Gellhorn, *The Abuse of Occupational Licensing*, 44 U. CHI. L. REV. 6, 6 (1976) (observing that, in 1969, no state licensed less than 63 occupations and that in many states official approval is required to be a bee keeper, embalmer, taxidermist, or tree surgeon).

196. See *id.* at 11; see also MILTON FRIEDMAN & ROSE FRIEDMAN, *FREE TO CHOOSE* 240 (1980); Deborah L. Rhode, *Professionalism in Perspective: Alternative Approaches to Nonlawyer Practice*, 22 N.Y.U. REV. L. & SOC. CHANGE 701, 706 (1996) [hereinafter Rhode, *Professionalism*]; George C. Leef, *The Case for a Free Market in Legal Services*, CATO POL'Y ANALYSIS No. 322, at 21 (Oct. 9, 1998), available at <http://www.cato.org/pubs/pas/pa322xa.pdf>. This conclusion, with respect to the licensing of lawyers, is suggested by the lack of concern for enforcing such rules prior to the 1930s, when the income of lawyers was at risk. See Deborah L. Rhode, *Policing the Professional Monopoly: A Constitutional and Empirical Analysis of Unauthorized Practice*

services;¹⁹⁷ and that licensing is generally bad public policy.¹⁹⁸ Regardless of whether any of these contentions are true, it is important to recognize that the increasing availability of versions of SAs that are easily accessible to the general public and user-friendly at least partially undermines the primary justification for most types of licensing, even if other, more limited, rationales remain.¹⁹⁹

Prohibitions, 34 STAN. L. REV. 1 (1981). With respect to medicine, see PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* 79–144 (1982); Charles H. Baron, *Licensure of Health Care Professionals: The Consumer's Case for Abolition*, 9 AM. J.L. & MED. 388 (1983).

197. It is unclear whether most forms of professional licensing actually benefit consumers. See Stanley J. Gross, *Professional Licensure and Quality: The Evidence*, CATO POL'Y ANALYSIS No. 79 (Dec. 9, 1986), at <http://www.cato.org/pubs/pas/pa079.html> (reviewing 26 studies of licensing and quality of service whose mixed results do not demonstrate the benefits of licensing); Sidney L. Carroll & Robert J. Gaston, *Occupational Licensing and the Quality of Service: An Overview*, 7 L. & HUM. BEHAV. 141, 145 (1983). Empirical studies have long noted that many non-lawyer specialists are equally or even more qualified than lawyers to provide assistance on many routine matters. See Rhode, *Professionalism*, *supra* note 196, at 706. These results appear to be confirmed in other nations. See Richard L. Abel, *Comparative Sociology of Legal Professions: An Exploratory Essay*, 1985 AM. FOUND. RES. J. 1, 28–30 (1985); Deborah L. Rhode, *Too Much Law, Too Little Justice: Too Much Rhetoric, Too Little Reform*, 11 GEO. J. LEGAL ETHICS 989, 1015 (1998) [hereinafter *Too Much Law*]. There also appears to be little actual evidence that medical licensing improves quality or protects the public. See Sue A. Blevins, *The Medical Monopoly: Protecting Consumers or Limiting Competition*, CATO POL'Y ANAL. NO. 246, §§ 131–43 (Dec. 15, 1995), at <http://www.cato.org/pubs/pas/pa-246.html>. The authors of a 1990 FTC report found that “occupational licensing frequently increases prices and imposes substantial costs on consumers. At the same time, many occupational licensing restrictions do not appear to realize the goal of increasing the quality of professional services.” CAROLYN COX & SUSAN FOSTER, FEDERAL TRADE COMMISSION, *THE COSTS AND BENEFITS OF OCCUPATIONAL REGULATION* v (Oct. 1990).

198. See S. DAVID YOUNG, *THE RULE OF EXPERTS: OCCUPATIONAL LICENSING IN AMERICA* (1987); Gellhorn, *supra* note 195; Rhode, *Too Much Law*, *supra* note 197, at 1013 n.171. In fact, some even challenge their constitutionality. See Leef, *supra* note 196, at 4–17.

199. Prohibitions on consumer choice continue to be rational where consumer purchases involve significant “externalities” — harms or benefits to third parties or society overall. See Thomas G. Moore, *The Purpose of Licensing*, 4 J.L. & ECON. 93, 103, 109–10 (1961). Thus, where the public finances a substantial portion of medical costs, this can justify laws requiring bike riders to wear helmets and imposing minimum technical standards for bicycle helmets. See *infra* note 249. Similarly, the public's concern about air pollution may justify the imposition of automobile fuel economy standards. See generally 40 C.F.R. pt. 86 (2001). The government may also impose prohibitions to ensure that a product includes a feature to produce a perceived positive externality. For example, Congress prohibited all television sets that do not include a “v-chip,” a device that enables a television to block specially labeled programming, e.g. material labeled “V” for violent. See 47 U.S.C. § 303(x) (2000) (implemented in 47 C.F.R. 15.120). Congress concluded that the feature would likely diminish the social harms resulting from sex and violence on television shows. Such prohibitions might also

Most licensing or other sales prohibitions appear to assume that consumers are unable to protect themselves from unintentionally hiring unqualified individuals or using harmful products, due to inadequate information,²⁰⁰ a lack of sophistication,²⁰¹ or the presence of significant misinformation. This assumption is valid to the extent that the services offered by professionals are difficult to assess prior to purchase because their primary attributes are the “experience” or “credence” qualities discussed above,²⁰² and such assessments are often made in periods of stress.

Today, however, the selection process appears to be getting much more user friendly. Professionals can and do secure certifications of many specialized skills,²⁰³ and there are many new technologies for monitoring quality.²⁰⁴ In addition, professionals are not shy about

be justified as a way to ensure that purchasers benefit from economies of scale in a situation where it may have been difficult to convince manufacturers that they should produce sufficient quantities to bring the cost and prices of the v-chip to attractively low levels. This may be a form of network effects justification. *See also* William E. Kennard, What Does \$70 Billion Buy You Anyway? Rethinking Public Interest Requirements at the Dawn of the Digital Age, Remarks at the Museum of Television and Radio (Oct. 10, 2000) (arguing that requiring televisions to include digital television (“DTV”) technology would “unleash . . . market forces and economies of scale to drive down the cost of equipment.”), *available at* <http://www.fcc.gov/Speeches/Kennard/2000/spwck023.html>.

200. Of course, state bar associations dramatically aggravated the situation by prohibiting the advertising of legal services until the Supreme Court’s decision in *Bates v. State Bar of Arizona*, 433 U.S. 350 (1977). Prior to that decision, lawyers were not even permitted to provide very much information about themselves in legal directories. *See* Gellhorn, *supra* note 195, at 22 n.55. Doctors faced similar restrictions. *See* *American Medical Association v. FTC*, 638 F.2d 443, 449 (2d Cir. 1980).

201. *Cf.* William M. Sage, *Regulating Through Information: Disclosure Laws and American Health Care*, 99 COLUM. L. REV. 1701, 1728 (1999) (“Disclosure must be comprehensible to be effective as a competitive tool, but comprehension is limited by the technical nature of information and by consumers’ . . . knowledge and experience, as well as their capacity to understand disclosed information.”). This would also appear to be the justification for the United Nations’ list of over 10,000 banned or restricted products and bans on the sale of meat that has not passed inspection. *See* Robert R. Kerton & Richard W. Bodell, *Quality, Choice, and the Economics of Concealment: The Marketing of Lemons*, 29 J. CONSUMER AFF. 1 (1995); 21 U.S.C. § 610(c) (1999); *see also supra* text accompanying note 146. *But see* Daniel J. Wakin, *New Scrutiny of Cheese Offends Refined Palates*, N.Y. TIMES, July 14, 2000, at B1 (discussing the conflict between the culture of food lovers and the health risks tempting regulators to ban the sale of certain cheeses).

202. *See supra* notes 103–05 and accompanying text.

203. Many of the critics of licensing requirements, noted above, have argued that voluntarily secured certificates indicating demonstrated and up-to-date expertise have long been a better way to remedy the “insufficient information” problem than one-time licensing plus continuing education requirements.

204. *See, e.g.,* Paul B. Ginsburg & Ernest Moy, *Physician Licensure and the Quality of Care: The Role of Information Technologies*, REGULATION, Fall 1992, at 32.

publicizing their expertise and laws prohibiting such advertising have been set aside.²⁰⁵ Furthermore, many local media offer consumers comparative evaluations of professionals.²⁰⁶ Against this background, consumers will increasingly be able to use SAs armed with comprehensive databases to find professionals meeting all of their requirements,²⁰⁷ as discussed below.²⁰⁸ Once access to these SAs is easy, it would seem that specialized certificates and disclosure requirements would be more beneficial to society than absolute bans on practicing without a license.²⁰⁹

Short of eliminating licensing requirements completely, states might at least consider relaxing constraints on those who are licensed as professionals in another state. Although states may prefer to set their own minimum quality standards, and might be reluctant to see them diminished by the lesser norms of other states, they should consider permitting their residents to defer to another state's credentialing as evaluated by an SA search focused on the individual's particular need.²¹⁰

205. For example, the long-standing prohibitions against lawyer advertising are no longer in effect. *See supra* note 200.

206. *See* Kim Isaac Eisler, *Divorce Washington-Style*, WASHINGTONIAN, Mar. 2000, at 54 (listing "top" divorce lawyers), available at <http://www.washingtonian.com/people/lawyers/divorcelawyers.html>; *see also* WASHINGTONIAN ONLINE: PEOPLE (listing other "top" professionals), at <http://www.washingtonian.com/people/default.asp> (last visited Dec. 1, 2000). In addition to reviews of service providers by the general local media, specialized entities similar to *Consumer Reports* have published regular reviews of service providers in some metropolitan areas. *See, e.g.*, Consumers' Checkbook, at <http://www.checkbook.org> (last visited Dec. 1, 2000).

207. *See* Alex Witchel, *Counterintelligence: Old Face, New Face, Women in Between*, N.Y. TIMES, Dec. 3, 2000, § 9, at 1 (noting that a consultant charges \$175 per hour to help patients find the most appropriate plastic surgeon); Sage, *supra* note 201, at 1737 n.114 (stating that information intermediaries can solve many problems by acting as expert conduits for data and analyses).

208. *See infra* Section IV.B.1.c.

209. *See* Beales, *supra* note 181, at 534–35. As one commentator has observed, the question is not whether there should be standards, but whether they should be determined by politics or markets. Leef, *supra* note 196, at 23. Some government bodies are recognizing that a more socially beneficial manner of preventing what appears to be the main harm addressed by licensing — individuals who misrepresent their qualifications — is to enforce prohibitions against such misrepresentations, if not also requiring unlicensed practitioners to clearly disclose their lack of traditional credentials. *See* Rhode, *Too Much Law*, *supra* note 197, at 1015. This would merely impose a preventive version of general professional liability principles, whereby a service provider may be liable for undertaking a matter for which he or she lacks the requisite skills, thus causing harm to a customer. *See* W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 32 (5th ed. 1984).

210. This is particularly true in medicine, which is certainly more national or international in its standards, *see* LITAN & NISKANEN, *supra* note 1, at 75–77, than law, particularly in areas like psychotherapy, which seems amenable to treatment from a

IV. FACILITATING THE SORTING OF OPTIONS

The burden of compiling and processing data about products often leads shoppers to make choices based on less than full information.²¹¹ SA databases, even better than charts, however, can give consumers the opportunity to retrieve and display lists of products according to any set of attributes that SA firms identify with labels.²¹² This product data may be divided into three categories.²¹³ Part A considers objective, inherent, often quantitative, static characteristics of products and the conceptual categories into which they may fit.²¹⁴ Reliable data about these are generally available directly from manufacturers. Part B reviews attributes that measure performance, including evaluations by experts and consumer surveys.²¹⁵ Part C discusses data that relate tastes for a product with buyer preferences for other products.²¹⁶

A. Objective Inherent Attributes

The Internet provides consumers and compilers of SAs with easy access to the detailed product information now posted on manufacturers'

distance, see Ellen Almer, *Online Therapy: An Arm's-Length Approach*, N.Y. TIMES, Apr. 22, 2000, at A1 (new mental health sites are beginning to pop up all over), and the use of telemedicine to reach rural areas. Thus, legislators have presented bills in Congress to permit medical professionals to practice and receive federal financial reimbursements for services rendered whether or not they are licensed by the state in which the patient resides. See Kent Conrad, *Introduction*, 73 N.D. L. REV. 1, 4 (1997).

211. See, e.g., Payne et al., *supra* note 83, at 254–56.

212. To facilitate comparisons, shoppers generally appreciate the value of a chart clearly listing competing products with their main features side by side. See Bettman et al., *supra* note 81, at 200; Häubl & Trifts, *supra* note 10, at 17–18. In recognition of the value to consumers of such a mechanism for choosing health care plans, Maryland has adopted a detailed “report card” format comparing health care plans according to parameters such as availability of preventative care and outcomes of common health conditions. See Sage, *supra* note 201, at 1719. Therefore, many SAs, like DealTime.com, follow the example of *Consumer Reports* and offer such displays, permitting one-on-one comparisons of a shopper’s favorite options. It is also useful to note that the law permits manufacturers to restrict price advertising by retailers. See Richard Steuer, *Retailing on the Internet*, 12 ANTITRUST 50, 50 nn. 4–7 (1998). This, however, would not appear to prevent SAs from acting like consultants to collect and share the prices that retailers are charging their customers.

213. These three categories are a modified version of the grouping of product attributes discussed earlier. See *supra* note 103 and accompanying text.

214. These generally correspond to the “search” qualities discussed above. See *id.*

215. These generally correspond to the “experience” or “credence” qualities discussed above. See *supra* text accompanying notes 104–05.

216. See *id.*

websites.²¹⁷ These include relatively well-defined quantitative measurements of static qualities — such as sizes and ingredients — along with any other relevant categories into which a product fits — such as “100% fat free,” “unattached single-family home,” or “permanent press.”²¹⁸ These categories may be defined by individual retailers,²¹⁹ trade associations, the media,²²⁰ or interest groups.²²¹ Where the government finds that private sector action is inadequate, possibly due to anticompetitive strategic actions,²²² it may adopt its own definitions of terms, such as the USDA’s definition of “orange juice.”²²³

As manufacturers recognize that SAs are creating databases of this information, their desire to increase sales should lead them to provide it to SAs in the format requested.²²⁴ Armed with such data, many sites already permit customers to search for products based on their most significant, objective, basic characteristics. For example, AOL’s PersonaLogic.com permits consumers to shop for a camcorder based on

217. *See infra* Section VI.

218. SAs could also try to code products with the characteristics of the customers most likely to prefer them, labeling the fastest modems for “impatient” customers, the sturdiest laptops for “clumsy” or “rough” users, and the best video processors for “videogame-addicts.” On the other hand, it appears to be more practical to limit the product database to attributes of the product and to help consumers translate their “user” characteristics into one or more “use” requirements, e.g., “sturdy” or “high speed,” in their search profile. *See infra* Section V.B.2.

219. For example, Best Cellars, a retailer of inexpensive wines, labels its offerings by useful styles, like taste or weight, rather than by grape type or place of origin. *See Best Cellars v. Grape Finds at DuPont*, 90 F. Supp. 2d 431, 435–36 (S.D.N.Y. 2000); Howard G. Goldberg, *Imitation Ruled an Illegal Form of Flattery*, N.Y. TIMES, Apr. 13, 2000, at B6. Amazon, for example, permits shoppers to search for music according to profiles like “driving,” “got dumped,” or in a “Sunday morning” mood. *See Phil Patton, Buy Here, and We’ll Tell You What You Like*, N.Y. TIMES, Sept. 22, 1999, at G22.

220. *See* NANCY PESKE & BEVERLY WEST, CINEMATHERAPY: THE GIRL’S GUIDE TO MOVIES FOR EVERY MOOD (1999) (labeling films according to what mood viewers might find them appealing). Products can be included in as many categories as they fit without increasing inventory costs. *See supra* note 99.

221. For example, some interest groups may approve or disapprove of particular social policies adopted by manufacturers. *See, e.g.,* Leslie Kaufman, *This Year the Thought Does Count*, N.Y. TIMES, Dec. 13, 2000, at C1 (discussing the philanthropic policies of the doll maker, Little Souls). *See infra* note 259.

222. *See* Ann Carrns, *AMA Fights for Control Over Doctor-Price Data Web Sites Are Providing*, WALL ST. J., Aug. 25, 2000, at A1 (reporting that the American Medical Association is seeking to prevent others from using its list of codes and descriptions called “Current Procedural Terminology,” or CPT). *But see* Practice Management Information Corp v. AMA, 121 F.3d 516, 519 (9th Cir. 1997) (“There is no evidence that anyone wishing to use the CPT has any difficulty obtaining access to it.”)

223. 21 C.F.R. §§ 146.135, 146.140 (2000).

224. *See* EVANS & WURSTER, *supra* note 11, at 139–40; Patricia Seybold, *Battle Over Buyers*, BUS. 2.0, Feb. 2000, at 65.

its weight, picture resolution, and recording time, and many sites permit buyers to retrieve musical recordings that meet criteria, such as CD, jazz, saxophone, and solo. Collecting data embarrassing to sellers would require more effort,²²⁵ but where the societal benefit from access to such information exceeds the cost of compiling and revealing it, it might be desirable to require manufacturers to disclose such data.²²⁶

To ensure the accuracy of their databases, SAs might periodically provide each manufacturer with a printout of all the information compiled about its products so that producers could catch unintentional errors²²⁷ or respond to negative information. Moreover, if SAs refused to employ a reasonable mechanism for correcting errors, it might be appropriate for the government to consider such a requirement, along the lines of the Fair Credit Reporting Act,²²⁸ to protect small businesses from dominant firms.

Manufacturers and SAs soon will also likely label products to help buyers find a gift that can be “matched” to a recipient or an occasion being commemorated. For example, if SA databases label musical recordings with the composer’s birth date, location of the piece’s premiere, etc., buyers will be able to find CDs that not only match a recipient’s musical tastes, but also his or her birth date (or at least birth year), hometown, honeymoon location, etc. To increase sales, manufacturers could also label products with any persons, places, or concepts with which they could be connected by some relevant story, and SAs could supplement those lists or simply confirm their accuracy.

225. An SA would have to monitor evaluation sources like those discussed below. See *infra* notes 261–64 and accompanying text.

226. See 12 C.F.R. § 226.5 (2000) (regarding credit disclosure requirements); 21 C.F.R. § 101 (2000) (regarding food labeling requirements); see also Sage, *supra* note 201, at 1704 (regarding medical plan options). See generally Alan D. Mathios, *The Impact of Mandatory Disclosure Laws on Products*, 43 J.L. & ECON. 651 (2000). Ideally these obligations are imposed on the party best able to provide the relevant data. See Sage, *supra* note 201, at 1722 (“Unfortunately, the most convenient parties from whom to require disclosures are not necessarily those who are truly accountable . . . and the most accountable parties may not be able to disclose accurately or economically.”). Interestingly, it appears that disclosure rules also tend to improve producer performance. See *id.* at 1771–1801. Given the special nature of cyberspace, the FTC has recognized the need to consider how to apply the traditional disclosure rules for product labels, printed advertisements, and television commercials to online displays. See *supra* note 35.

227. See Patricia Cohen, *Oops, Sorry: Seems That My Pie Chart is Half Baked*, N.Y. TIMES, Apr. 8, 2000, at B7. Even *Consumer Reports* makes errors. See Andrew Pollack, *No Clear Winner in Decision in Isuzu vs. Consumer Reports*, N.Y. TIMES, Apr. 8, 2000, at C3.

228. See 15 U.S.C. §§ 1681(g), 1681(i) (2000) (respectively requiring consumer access to credit information and regulating consumer efforts to correct inaccurate information or at least indicate that a dispute exists).

Two sub-issues arise with respect to supplier disclosures of basic product information: (1) how to define terms and standards uniformly in a global market, and (2) how to revise existing disclosure rules for a hypertext medium.

Before discussing these issues, it is important to acknowledge that this Article barely touches on policy issues related to so-called “merchant” variables, such as price and availability, although they are often critical to customer purchase decisions. Although the integration of the merchant selection process and the product selection process can and almost certainly will occur,²²⁹ analysis of that combination is left for another day.²³⁰ This Article simply assumes that the SA is using either the data from a real-time merchant search²³¹ or, more likely, a manufacturer’s suggested retail price, in the manner of *Consumer Reports* or ActiveBuyersGuide.com.

1. Defining Terms and Standards in an Increasingly Global Environment

As just noted, it is usually rather easy for SAs to compile objective data about products in a market. Occasionally, however, it is unclear where a new product fits because the definitions of categories are somewhat vague. For example, should a SA characterize a Japanese version of the South Korean pickled cabbage snack as “kimchi,” despite its differences with the South Korean version,²³² or should it tag a wristwatch as “water-resistant” based on its Swiss manufacturer’s label? Travelers and retailers of imported products have learned to adjust to the

229. See Robert H. Guttman et al., *Agent-mediated Electronic Commerce: A Survey*, 13 KNOWLEDGE ENGINEERING REV. 147, 148 (1998). Many experts treated merchant selection and product selection processes as an integrated package. See JAMES F. ENGEL ET AL., CONSUMER BEHAVIOR (1982) (describing information search and evaluation alternatives); FRANCESCO M. NICOSIA, CONSUMER DECISION PROCESSES: MARKETING AND ADVERTISING IMPLICATIONS (1966) (describing search evaluation stage);. Some of the factors that might affect buying decisions would be price, availability, credit terms, return policy and locations, and procedural simplicity.

230. This is the same approach taken in Häubl & Trifts, *supra* note 10, at 6–7. An analysis of the merchant selection process could follow the model described here, but with somewhat different variables. Moreover, given the greater volatility of the data, the database would likely need to be a network database. This Article also omits any discussion of the dangers that perfect price information may have to facilitate price fixing by competitors or other such price consequences. See Wildman, *supra* note 164, at 57–64.

231. This would be based on the shopper’s “merchant preference profile” (e.g., delivery deadlines, price sensitivity, etc.).

232. See Calvin Sims, *Cabbage Is Cabbage? Not to Kimchi Lovers*, N.Y. TIMES, Feb. 5, 2000, at C1.

different definitions that terms may have in different localities, but as more consumers enter the global arena for the first time, they may be unaware of what problems to expect. Additional action to educate naïve new buyers may be warranted.²³³

Individual producers or an industry's trade association, eager to encourage future sales, should recognize the value of well-defined international terms and standards for each product market and should act to help shoppers find what they are seeking. Thus, when certain online bookstores sought to deceive shopping bots seeking the lowest prices by hiding all of their profit margins in their shipping costs, shopping bots quickly responded by redefining the price used for ranking stores to include shipping and taxes.²³⁴

Consumer groups or evaluation services may suggest useful standards and definitions, or offer appropriate conversion tables between norms and definitions²³⁵ in different lands or between different companies' sizes and colors.²³⁶ In some cases, however, competitors' conflicting views may produce stalemates and an industry may be unable to settle on reasonable standards, particularly in a global context. Some firms may seek to exploit the standard-setting process to frustrate competition.²³⁷ In such cases, government involvement may be in the public interest.²³⁸ For example, the Department of Agriculture recently adopted highly praised standards for "organic" food.²³⁹ Where

233. Public schools and libraries should probably teach consumers to recognize definitional disparities and where to look for assistance to resolve them. Moreover, given the ease of sharing content via the Internet, libraries might coordinate their efforts to offer more specialized assistance with different problems in this area and share their efforts with each other.

234. See Bob Tedeschi, *Internet Retailers Hide True Costs of Purchases*, N.Y. TIMES CYBERTIMES (Apr. 5, 1999), at <http://www.nytimes.com/library/tech/99/04/cyber/commerce/05commerce.html>.

235. See *supra* note 25.

236. See David Orenstein, *Shop — But Don't Drop*, BUS. 2.0, Jan. 9, 2001, at 38, 40 (discussing the efforts of shoppinglist.com and the rightsize.com to "normalize" the colors and sizes of different manufacturers' clothes).

237. See SHAPIRO & VARIAN, *supra* note 33, at 261–96; William J. Baer & David A. Balto, *Antitrust Enforcement and High-Technology Markets*, 5 MICH. TELECOMM. & TECH. L. REV. 73, 82–83 (1999).

238. See Sage, *supra* note 201, at 1741–42; Charles P. Kindleberger, *Standards as Public Collective and Private Goods*, 36 KYKLOS 377, 378, 384 (1983). Such government intervention, however, would only be justified where the costs of intervention were exceeded by the likely benefits of action. Given the uncertainty that the government would get it right, this can be a difficult hurdle to satisfy. See generally THOMAS SOWELL, *KNOWLEDGE AND DECISIONS* (1980).

239. See National Organic Program, 65 Fed. Reg. 80,547 (Dec. 21, 2000) (to be codified at 7 C.F.R. pt. 205); see also Burros, *supra* note 26; Marian Burros, *U.S. Planning Tough Rules For Growing Organic Food*, N.Y. TIMES, Mar. 5, 2000, § 1, at

international descriptive standards appeared desirable, industry and international bodies might adopt them.²⁴⁰ When this proves impractical, government treaties like the one regulating the use of the term “champagne”²⁴¹ might be pursued, possibly through the United Nations.²⁴² Once standards were set, government agencies could police the marketplace for false or misleading product claims.²⁴³

2. Encouraging Appropriate Disclosure Rules for a Hypertext Medium

In addition to applying existing disclosure rules to cyberspace,²⁴⁴ the government could also consider whether to take advantage of the Internet to adopt a more market-driven approach to disclosure requirements. Rather than imposing *requirements* — which could have inadvertent negative effects on information flows²⁴⁵ — the government could focus on helping consumers to *demand* the disclosures that intermediaries, like SAs, Better Business Bureaus, or the Consumer Product Safety Commission (“CPSC”)²⁴⁶ suggested. Manufacturers

22; *Editorial: New Rules on Organic Foods*, N.Y. TIMES, Mar. 9, 2000, at A28. In addition, the Food and Drug Administration has been urged to take this step with respect to herbal medicines. See Denise Grady, *Scientists Say Herbs Need More Regulation*, N.Y. TIMES, Mar. 7, 2000, at F1.

240. For example, see the Federal Energy Management Program’s “Energy Star” logo for identifying energy efficient products at <http://www.eren.doe.gov/femp/procurement/begin.html>. The value of seals of approval, however, would likely vary. See Amy Zuckerman, *Sorting Out the Seals of Approval*, N.Y. TIMES, July 16, 2000, § 3, at 10; see also *supra* note 143.

241. See Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, art. 23; Leigh Ann Lindquist, *Champagne or Champagne? An Examination of U.S. Failure to Comply With the Geographical Provisions of the TRIPS Agreement*, 27 GA. J. INT’L & COMP. L. 309 (1999); see also Frank J. Priol, *California Is Refining Its ‘Appellations,’* N.Y. TIMES, June 7, 2000, at F8 (discussing the efforts of the U.S. Treasury Department’s Bureau of Alcohol, Tobacco & Firearms to designate specific wine growing “viticultural” areas).

242. On the other hand, the U.S. often has the power to set de facto global standards itself. See, e.g., STEPHEN E. AMBROSE, *NOTHING LIKE IT IN THE WORLD: THE MEN WHO BUILT THE TRANSCONTINENTAL RAILROAD, 1863–1869* (2000).

243. See *supra* note 144. Yet where there are disputes over the use of terms within the standard-setting community, it might be better for the government to refrain from enforcement, particularly when definitions involve cultural or religious standards. See *Commack Self-Service Kosher Meats v. Rubin*, 106 F. Supp. 2d 445 (E.D.N.Y. 2000), discussed in Robert D. McFadden & Joseph R. Fried, *Judge Voids Kosher Food Laws Under First Amendment*, N.Y. TIMES, Aug. 4, 2000, at B1.

244. See *supra* note 35.

245. See Avery M. Abernathy & George R. Franke, *FTC Regulatory Activity and the Information Content of Advertising*, 17 J. PUB. POL’Y & MARKETING 239 (1998).

246. Many have argued that voluntary forms of information disclosures would be less burdensome and more useful, at least with respect to federal securities laws. See Sage,

would face market, not government, pressure to reveal the data sought by intermediaries, including, for example, the seals of approval discussed above, indicating that a respected intermediary was willing to verify some feature or condition.²⁴⁷ The FTC has already recognized the value of such private-sector certification systems in the context of industry privacy rules,²⁴⁸ and the CPSC has at times relied on existing industry standards.²⁴⁹ In addition, existing government educational efforts already promote this type of educated shopping.²⁵⁰

B. Performance Assessments

Although product brands can often help consumers estimate a product's long-term performance,²⁵¹ many shoppers also want to consider expert and fellow shoppers' assessments of a product's performance.²⁵² At least two issues arise in this area: financing credible product evaluations and the treatment of implicit endorsements.

supra note 201, at 1721–22 n.49. This approach asks government officials to act as leaders to help stimulate public demand. *See also* Mark S. Nadel, *Empower Parents to Choose Quality Children's Television*, 19 J. POL'Y ANAL. & MGMT. 145, 147 (2000) (arguing that public officials should encourage parents to demand editing services from media firms so that they could control what their children watch on television).

247. *See supra* note 143.

248. *See id.*

249. For example, in 1995, the CPSC adopted interim rules that required bicycle helmets to meet one of an alternative set of credible industry standards. *See* Interim Rule: Safety Standards for Bicycle Helmets, 60 Fed. Reg. 15,231 (Mar. 23, 1995) (codified at 16 C.F.R. § 1203 (1995)).

250. *See infra* Section V.C.2.

251. *See* McEnally & de Chernatony, *supra* note 106, at 13–17 (stating that while “real” performance qualities are referenced by “stage 2” branding, stage 3 branding may also indicate psychic or emotional performance); *see also* EVANS & WURSTER *supra* note 11, at 77; J. Wesley Hutchinson & Joseph Alba, *Ignoring Irrelevant Information: Situational Determinants of Consumer Learning*, 18 J. CONSUMER RES. 325 (1991); P.K. Kannan et al., *Marketing Information on the Iway: Data Junkyard or Information Gold Mine?*, COMM. ACM, Mar. 1998, at 35, 40. In most cases, the brand is the manufacturer's name, but in some cases, as in book publishing and film production, the name of that entity generally has little relevance. *See* Thomas R. King, *Prize Promotion by Paramount Isn't a Big Draw*, WALL ST. J., Sept. 3, 1991, at B1. According to one reporter, “a newspaper or a . . . magazine is a brand name, and the reader knows exactly what to expect from the brand. People don't buy books because of the publisher's name.” Martin Arnold, *Making Books: Does Nonfiction Mean Factual?*, N.Y. TIMES, July 20, 2000, at B3. In these latter cases, the name of the author, director, or star may represent the brand.

252. This would not apply to paid endorsements, which might provide psychic value to a product or increase the likelihood that the product is remembered and purchased. *See* Brian D. Till, *Matching Products with Endorsers: Attractiveness Versus Expertise*, 15 J. CONSUMER MARKETING 576 (1998).

1. Subjective Evaluations and Testing

Shoppers often solicit product evaluations from friends, family, and colleagues,²⁵³ but many also seek aid from experts who gather or solicit large numbers of consumer evaluations or conduct their own performance reviews.

a. Gathering Volunteered Evaluations

Much information useful to shoppers is produced by third parties pursuing other goals. For example, school test results, high school graduation rates, and crime rate data that home buyers (and thus real estate agents) may want²⁵⁴ is compiled by school districts and the police, respectively. New York City diners can consult a website listing cleanliness reports compiled by the city's restaurant inspectors.²⁵⁵ There are many ongoing efforts to assess the quality of health care plans according to statistically valid, quantitative data,²⁵⁶ and public health entities collect data on medical success or error rates²⁵⁷ as well as adverse actions against physicians.²⁵⁸ In addition, some social activist groups provide seals of approval for companies that meet their standards.²⁵⁹

253. See *supra* note 108.

254. See Francis X. Clines, *Cheating Report Renews Debate Over Use of Tests to Evaluate Schools*, N.Y. TIMES, June 9, 2000, at A18 ("School ratings remain as feverishly consulted as tax tables by home buyers looking for strong schools that can put their children on the path to prestigious universities and high-paying careers.").

255. See Thomas J. Lueck & Neil MacFarquhar, *Restaurant Inspection Starts a Feeding Frenzy on the Web*, N.Y. TIMES, May 18, 2000, at B1 (discussing the online availability of the New York City Department of Health's restaurant inspection information); Tim Zagat, *A Clean Bill of Fare*, N.Y. TIMES, May 20, 2000, at A15.

256. See Sage, *supra* note 201, at 1718 n.36.

257. See Robert Pear, *Clinton to Order Steps to Reduce Medical Mistakes*, N.Y. TIMES, Feb. 22, 2000, at A1; Sheryl Gay Stolberg, *U.S. Publishes First Guide to Treatment of Infertility*, N.Y. TIMES, Dec. 19, 1997, at A22; see also Sage, *supra* note 201, at 1737 n.114. These are sometimes posted on the Internet. See Jennifer Steinhauer, *Legislators Approve Web List Disclosing Missteps by Doctors*, N.Y. TIMES, June 24, 2000, at A1 (discussing how the New York State Department of Health posts data about malpractice and disciplinary actions against doctors practicing in New York State).

258. The Patient Protection Act of 2000, H.R. 5122, 106th Cong. (2000), would have given the public access to physician information in the National Practitioner Data Bank.

259. See Michel Pollan, *Produce Politics*, N.Y. TIMES, Jan. 14, 2001, § 6 (Magazine), at 11 (discussing a sampling of grocery store labels certifying compliance with an organization's goals); Burros, *supra* note 144; Steven Greenhouse, *Banishing the Dickensian Factor*, N.Y. TIMES, July 9, 2000, § 4, at 5 (noting that the Fair Labor Association has adopted a code for monitoring working conditions in foreign countries); Michael Janofsky, *Environment Groups' Ratings Rile Ski Industry*, N.Y. TIMES, Dec. 3,

SAs already store data about products that have won or attained finalist status for prestigious awards, with some book sites maintaining data about more than 50 different prizes.²⁶⁰ SAs might also quantify the wealth of quality assessments available from a variety of sources. These include negative comments, such as medical errors found by peer review groups,²⁶¹ complaints filed with Better Business Bureaus and state consumer protection offices or at websites created by disgruntled customers,²⁶² as well as both negative and positive comments posted at discussion groups like alt.fashion, at manufacturers' online communities,²⁶³ and at shopping sites like Amazon.²⁶⁴ SAs that could gather all this data, while screening out propaganda,²⁶⁵ would provide useful assistance to buyers.²⁶⁶ Ideally, an SA could quantify these overall quality assessments according to a numerical scale²⁶⁷ to help consumers better sort products according to these assessments.

2000, § 1, at 46 (reporting that nine ski areas received "A"s and ten received "F"s from environmental groups for their development and expansion policies); Steffan Heuer, *Six Degrees of Co-Option*, INDUSTRY STANDARD, July 3, 2000, at 196, 199 (discussing how David B. Wheeler, CEO of myvalues.com, plans to screen companies and award seals of approval to help consumers rank them); see also McEnally & de Chernatony, *supra* note 106 (explaining that seals used in this manner represent the sixth stage of brands). For further discussion of seals, see *supra* note 143.

260. This encourages consumers not to put too much reliance on a single award, like the Newbery Medal. See E.J. Graff, *A Gold Star for Tedium*, SALON.COM (Jan. 25, 2001) (complaining that parents give too much deference to the Newbery Medal award choices in children's books), at <http://www.salon.com/books/feature/2001/01/25/newbery>.

261. See Robert Pear, *Medicare Shift: Doctors' Errors to be Disclosed*, N.Y. TIMES, Jan. 2, 2001, at A1.

262. See Hilary Appelman, *I Scream, You Scream: Consumers Vent Over the Net*, N.Y. Times, Mar. 4, 2001, § 3, at 13 (reporting that over a dozen sites online have been competing to be the location of choice for angry consumers); James Daly, *The Gripes of Wrath*, BUS. 2.0, July 25, 2000, at 5 (identifying eComplaints.com, TheComplaintStation, and PlanetFeedback.com); Rob Walker, *Evil Inc.*, N.Y. TIMES, Aug. 6, 2000, § 6 (Magazine), at 15.

263. See JOHN HAGEL & ARTHUR ARMSTRONG, NET GAIN 193 (1997); MEEKER & PEARSON, *supra* note 44, at 9-7 to 9-8. Consumers' need for help is likely to be a function of the difficulty of the task, due to unfamiliarity with the terms and number of factors to consider. See Payne et al., *supra* note 83, at 263.

264. This would include the number of stars that books received from reviewers. See Bob Tedeschi, *Some On-Line Retailers Are Finding That Consumer Reviews of Products Can Help Build Loyalty to a Site — And Sales*, N.Y. TIMES, Sept. 6, 1999, at C4.

265. See Rebecca Fairley Raney, *Incognito Spinmeisters Battle On-Line Critics*, N.Y. TIMES, Oct. 14, 1999, at G1.

266. See Guttman et al., *supra* note 229, at 153 (mentioning the efforts of Bargainfinder and Jango).

267. For example, ConsumerReview.com and deja.com use scales of 1–5. SAs could also rate individual aspects of products. See *infra* Section IV.B.1.c.

b. Financing Expert Evaluations and Consumer Surveys

Shoppers also value large, random samples of consumer reviews, and thus they buy Zagat's restaurant guides.²⁶⁸ Similarly, manufacturers finance surveys by respected firms like J.D. Power²⁶⁹ and ValueStar.com. Then there are newcomers spawned by the Internet, like Epinions.com, deja.com, and others that use multi-dimensional ratings.²⁷⁰ These reviews and rating systems, however, are susceptible to unconscious biases,²⁷¹ rings of conspirators,²⁷² and other factors that diminish their credibility.²⁷³

Therefore, buyers place even greater value on the evaluations of respected experts who test or grade products themselves,²⁷⁴ such as *Good*

268. See Bridget Samburg, *Read 'Em and Eat*, BRILL'S CONTENT, May 2000, at 115 ("Tim and Nina Zagat have built a dining-guide empire on the opinions of amateur food critics — a formula tailor-made for the Internet").

269. See Timothy Noah, *People's Choice Awards*, N.Y. Times, Aug. 8, 1999, § 6 (Magazine), at 42 (comparing and contrasting approaches that J.D. Power and *Consumer Reports* take to help consumers select the best product).

270. See Kim Girard, *The Test of Time*, BUS. 2.0, July 25, 2000, at 52, 54; (describing Productopia.com, Epinions.com, ConsumerReview.com, and deja.com); Greg R. Notess, *Consumers' Revenge: Online Product Reviews and Ratings*, ECONTENT, Apr. 2000, at 61, available at <http://www.ecmag.net/EC2000/web4.html>; see also Kim Cross, *Stayin' Alive: Doctor Check-up*, INDUSTRY STANDARD, Nov. 14, 2000, at 254; Katie Hafner, *Web Sites Begin to Get Organized on Their Own*, N.Y. TIMES, Jan. 18, 2001, at G1 (noting that some websites encourage individuals to rate the raters as well as the items of interest); see also *supra* note 102.

271. See Mark Gimein, *The Consumer's Always Wrong*, SALON.COM, (Nov. 10, 1999) (discussing (1) the "Philadelphia effect," noticed by Tim Zagat, whereby consumers of some products are easy graders relative to consumers of other products; and (2) the "Alan Keyes tsunami," whereby fans of one product offer a disproportionate number of ratings), at http://www.salon.com/tech/feature/1999/11/10/consumer_reviews.

272. See Judith H. Dobrzynski, *In Online Auction World, Hoaxes Aren't Easy to See*, N.Y. TIMES, June 2, 2000, at A1 (discussing how rings of conspirators make artificial bids for each other's items and also post glowing testimonials about each other's practices); Paul Resnick et al., *Reputation Systems*, COMM. ACM, Dec. 2000, at 45, 47.

273. See Megan Barrett, *No Looking Behind the Curtain*, INDUSTRY STANDARD, May 8, 2000, at 58 (questioning the methodology used by online rating services); Resnick et al., *supra* note 272, at 47–48; Peter Rojas, *E-Commerce: The Buying Game*, RED HERRING, Feb. 2000, at 48 (discussing the challenges of building consumer trust in consumer review sites), available at <http://www.redherring.com/mag/issue75/mag-buying-75.html>.

274. See Eovaldi, *supra* note 18, at 1237–38; Cross, *supra* note 270. But distinguishing true experts from those with ulterior motives who are merely masquerading as experts may be difficult. See *infra* note 296.

*Housekeeping*²⁷⁵ and *Consumer Reports*.²⁷⁶ In addition to these institutions, consumers also rely on individual reviewers,²⁷⁷ other independent experts,²⁷⁸ and “mavens.”²⁷⁹ Because their credibility is essential to their role, these advisors attempt to resist pressure from product producers.²⁸⁰ Moreover, as wireless communications devices become more prevalent, these experts may encourage instant customer feedback confirming their assessments or suggesting that a reevaluation may be warranted.²⁸¹

275. *What's Behind the Good Housekeeping Seal?*, at <http://goodhousekeeping.women.com/gh/misc/institute/ghinstr2.htm>; see also *Trust the Seal*, BUS. 2.0, Sept. 26, 2000, at 37.

276. See Michelle Slatalla, *Turning the Table to Rate the Raters*, N.Y. TIMES, Mar. 23, 2000, at G4 (one reporter's evaluation of *Consumer Reports*); Noah, *supra* note 269. But see Jennifer Greenstein, *Testing Consumer Reports*, BRILL'S CONTENT, Sept. 1999, at 70; Pollack, *supra* note 227. Other sources include Underwriters Laboratories, the Michelin guides, The Franklin Report, and *Consumers Digest*.

277. See Eovaldi, *supra* note 18, at 1237–39, Hamel & Sampler, *supra* note 6, at 86.

278. See EVANS & WURSTER, *supra* note 11, at 81; HAGEL & SINGER, *supra* note 6, at 231; DANIEL YANKELOVICH, THE MAGIC OF DIALOGUE 188 (1999); Robert X. Cringely, *On the Internet, Fame Becomes Fortune*, N.Y. TIMES, Jun. 10, 1999, at A31. One example is “Terry Love's Consumer Toilet Report.” See <http://www.terrylove.com/crtoilet.htm>. Individual experts may also write books or articles critical of or praising a product. See Patricia Cohen, *A Claim-Buster By Calling*, N.Y. TIMES, Apr., 29, 2000, at B1 (discussing Robert Park, a debunker of many fraudulent claims about new products).

279. See MALCOLM GLADWELL, THE TIPPING POINT 59–69 (2000) (defining “mavens” as individuals who are both experts and gain pleasure from helping others make more educated choices). Mavens may then contact “connectors,” *id.* at 34–59, such as Oprah Winfrey, to spread their views. See D.T. Max, *The Oprah Effect*, N.Y. TIMES, Dec. 26, 1999, § 6, at 36.

280. Experts may face pressure in the form of sticks and carrots. Some product producers may threaten to punish unfavorable reviews. See Barringer, *supra* note 127; Weinraub, *supra* note 127. Others may offer commissions for directing consumers their way. See Bob Tedeschi, *Product Reviews From Anyone With an Opinion*, N.Y. TIMES, Oct. 25, 1999, at C16; Shelly Branch, *Product Plugs — 'M'm M'm Good'?*, WALL ST. J., Nov. 14, 2000, at B1 (reporting that hosts of ABC's television show *The View* praised Campbell Soup in paid spots). To preserve its credibility, *Consumer Reports* avoids even the appearance of such pressure by refusing to accept any advertising despite the cost of maintaining 50 laboratories and employing more than 150 engineers, survey researchers, and survey analysts. See Slatalla, *supra* note 276. For examples of conflicts of interest, see *infra* note 296.

281. Consumers are often motivated to give such feedback at the moment that they formulate their opinion, and if they are able to leave a quick voicemail or e-mail message, they may well do so. On the other hand, time pressures make it less likely that many will take the time to pass on such comments once that moment has passed. That is, expressing their views orally to friends or acquaintances may diminish their motivation to write a subsequent note. For example, in DONALD MARGULES, COLLECTED STORIES 16 (1998), a writing professor instructs her student that “[t]elling takes away the need to write it. It relieves the pressure. And once the pressure dissipates, so does the need to relieve it . . .”

SAs, like ConsumerSearch.com, can collect all scores published by value-rating services for relevant product markets.²⁸² Manufacturers also have a strong incentive to provide SAs with all positive reviews of their products and perhaps even negative reviews about their competitors' offerings.²⁸³ SAs with special expertise in the product market may also add their own assessments to their databases, as real estate agents often do.²⁸⁴ Yet some observers have expressed concerns that consumer product evaluation services would be undersupplied in the market if product evaluators were unable to control the dissemination of their results.²⁸⁵

As discussed above, the combination of databases and the Internet dramatically amplifies the potential for free riding and may justify the additional protection offered by H.R. 1858 against mere copying.²⁸⁶ Although one can copyright subjective product evaluations, including even estimated fair market prices,²⁸⁷ laws that prohibit them from being

Firms desiring to take advantage of this situation may do well to establish easily identifiable email addresses and toll-free phone numbers for customer feedback about each particular product.

282. See Jakob Nielsen, *Reputation Managers are Happening*, ALERTBOX (Sept. 5, 1999), at <http://www.useit.com/alertbox/990905.html>.

283. See Eovaldi, *supra* note 18, at 1237. Providing such information to SAs directly, but off the record, may enable manufacturers to see the information disseminated without doing it themselves and forcing them to defend themselves in court. See *Consumers Union, Inc. v. Gen. Signal Corp.*, 724 F.2d 1044 (2d Cir. 1983); *Consumers Union, No-Commercialization Policy*, at <http://www.consumerreports.org/Home/About/adviolation.html>.

284. Selling agents might note that a friendly doctor or a potential babysitter is living next door to a home, or that a neighborhood did not welcome children. See Lisa Belkin, *Your Kids Are Their Problem*, N.Y. TIMES, July 23, 2000, §6 (Magazine), at 30, 42 (reporting that some home buyers have difficulty identifying neighborhoods that are child-free). Agents could also label neighborhoods as "primarily owner occupied" or "primarily rentals," based on tax exemption records stored on county appraisal websites. See Patrick Barta, *Home Buying: Just Looking*, WALL ST. J., Oct. 23, 2000, at R42, 44.

285. See Eovaldi, *supra* note 18; see also Beales, *supra* note 181, at 503. Eovaldi's article responds to *Consumers Union of U.S., Inc. v. General Signal Corp.*, 724 F.2d 1044 (2d Cir. 1983), *cert. denied*, 469 U.S. 823 (1984), which denied *Consumer Reports* the right to prevent an advertiser from using a short quotation from *CR* that praised its product. After reviewing a few responses to the free rider problem, Eovaldi concluded that a compulsory licensing regime for using evaluators' assessments was probably the most promising solution. See Eovaldi, *supra* note 18, at 1253-60. New York State, however, responded by enacting a law protecting *CR* with a kind of right of publicity for non-profit firms. See N.Y.S. Gen. Bus. Law § 397. But see *Consumers Union of U.S., Inc. v. New Regina Corp.*, 664 F. Supp. 753 (S.D.N.Y. 1987) (refusing to grant summary judgment against Consumers Union's effort to block use of its evaluation).

286. See *supra* text accompanying notes 177-78.

287. See *CDN, Inc. v. Kapes*, 197 F.3d 1256 (9th Cir. 1999) (holding that a coin dealer's estimates of wholesale prices of coins are protected by copyright law); *CCC Info. Servs., Inc. v. MacLean Hunter Mkt. Reports*, 44 F.3d 61 (2d Cir. 1994) (holding that

used as inputs to a private, searchable database would appear to suffer the same infirmities as H.R. 354.²⁸⁸ Meanwhile, it appears that the marketplace already offers firms sufficient options for responding to this free rider problem.

First, entities like Consumers Union could seek payment from other interested parties,²⁸⁹ including the firms whose products they were evaluating.²⁹⁰ Although Consumers Union might reject this latter option for fear of damaging its credibility,²⁹¹ it should be noted that auditors do not lose their credibility when businesses pay them to verify financial records²⁹² or privacy policies.²⁹³ It also seems clear that public broadcasters, as exemplified by *The NewsHour with Jim Lehrer*, are able to maintain their independence despite acceptance of grants or brand commercials from parties on whom they report.²⁹⁴ Although there is certainly a credibility problem for entities that report on their owners²⁹⁵

estimates of car values are protected by copyright law).

288. See *supra* text accompanying notes 179–81.

289. If insurance companies could obtain sufficient benefits, they might be willing to pay part of the cost of such research. See Uwe E. Reinhardt, *How to Lower the Cost of Drugs*, N.Y. TIMES, Jan. 3, 2001, at A17 (arguing that private insurers and the government should endow a \$1 billion research institute to provide reputable evaluations of whether expensive new drugs are significantly more effective than those they would replace).

290. Granted, evaluators would face strong financial incentives to manipulate information. See Alessandro Lizzeri, *Information Revelation and Certification Intermediaries*, 30 RAND J. ECON. 214 (1999). Still, they could continue to choose to maintain their integrity, embrace full disclosure, and charge standard cost-based prices for their evaluation services that could be affordable to all manufacturers.

291. See Paul Resnick & Hal R. Varian, *Recommender Systems*, COMM. ACM, Mar. 1997, at 56, 58; see also *supra* note 280; *infra* note 296. But cf. *General Signal*, 724 F.2d at 1050 n.6 (questioning whether consumers, when viewing a manufacturer's use of a CR quotation, would assume that it had been purchased from CR).

292. Similarly, laboratories do not lose their credibility when prosecutors or defense lawyers pay them for DNA test results. The same goes for general competency tests that doctors, lawyers, and other professionals must take to demonstrate their qualifications. See Leef, *supra* note 196, at 35–37. But see Gretchen Morgenson, *S.E.C. Seeks Increased Scrutiny and New Rules for Accountants*, N.Y. TIMES, May 11, 2000, at C1.

293. See Bob Tedeschi, *Some Online Sellers Are Hiring Prominent Auditors to Verify Their Privacy Policies and Increase Trust*, N.Y. TIMES, Sept. 18, 2000, at C12.

294. See Schoemer, *supra* note 127; see also ConsumerSearch, Ratings Criteria, Methodology, and Overall Findings, at <http://www.consumersearch.com/ratingscriteria.htm> (last visited Jan. 15, 2001) (discussing the influence of magazine advertising on ConsumerSearch ratings of consumer product review articles). Some charge, however, that even *The NewsHour* may avoid subjects sensitive to its sponsors. See John Leonard, *How a Caged Bird Learns to Sing*, THE NATION, June 26, 2000, at 11.

295. See Jonathan Weber, *When the News Is Us*, INDUSTRY STANDARD, Jan. 31, 2000, at 13; Alex Kuczynski, *Several Media Companies Form Web Site Partnership*, N.Y. TIMES, Feb. 2, 2000, at C6.

or face other conflicts of interest,²⁹⁶ the key to keeping their reputations intact appears to be careful disclosure of any conflicts that others may perceive.²⁹⁷

Second, evaluators could refrain from publishing their empirical data. They could offer their customers the chance to sort among choices based on the raw data, but without actually seeing it displayed, thereby relying on trade secret law to protect valued intellectual property.²⁹⁸ Consumers could search for products that were rated above average in a few specific categories or rated highest in one category and above average in a few others, or any of a myriad of other combinations. Testers could also license the use of their raw data to others who agreed not to display it. As another option, product testers could provide or oversee testing for others, as *Good Housekeeping* agreed to do for the website brandwise.com.

296. The SEC has recognized a similar problem with firms auditing their own consultants' work. See Arthur Levitt, A Profession at the Crossroads, Address Before the National Association of State Boards of Accountancy Conference (Sept. 18, 2000), available at <http://www.sec.gov/news/speeches/spch399.htm>; Floyd Norris, *Accounting Firms Accept Rule to Limit Conflict of Interest*, N.Y. TIMES, Nov. 15, 2000, at A1. A similar conflict exists when Wall Street analysts evaluate their investment banking clients. See Danny Hakim, *The Analyst as Bomb Thrower*, N.Y. TIMES, Sept. 26, 2000, at C1 ("Most Wall Street analysts walk a tightrope between offering unvarnished opinions and being careful not to rankle potential investment banking clients."); Gretchen Morgenson, *How Did So Many Get It So Wrong?*, N.Y. TIMES, Dec. 31, 2000, § 3, at 1. This should create a market for unconflicted evaluators. See Loren Fox, *Investing: Free the Fees*, BUS. 2.0, Sept. 26, 2000, at 215 ("The startups are building on the perception that Wall Street's research is tainted by the firm's interest in investment banking."). Of course, even supposedly unbiased entities may stray. See Felicity Barringer, *Paper Delays Publication of Critic's Column*, N.Y. TIMES, Nov. 6, 2000, at C20 (reporting that a newspaper delayed publication of a critical review of a new product financed by the publisher's parent company); *Examiner's Publisher Is Replaced After Testimony in Antitrust Suit*, N.Y. TIMES, May 3, 2000, at A20 (reporting that a publisher offered a city mayor favorable editorials in exchange for support of the publisher's business interests); Anne Jarrell, *Doctors Who Love Publicity*, N.Y. TIMES, July 2, 2000 §9 at 1 (discussing the credibility of articles about dermatological procedures written by magazine journalists who receive the procedures free of charge); Neil MacFarquhar, *Protests Follow Suspension of Boston Journalist Who Reported on Bank Fees*, N.Y. TIMES, May 5, 2000, at A23 (reporting accusations that an advertiser may have pressured a newspaper over its consumer affairs coverage).

297. See Sage, *supra*, note 201, at 1749–52, 1756, 1766; Mark S. Nadel, *A Technology Transparent Theory of the First Amendment and Access to Communications Media*, 43 FED. COMM. L. J. 157, 175–76 (1991).

298. Database compilers could rely on the protection of trade secret law. See Uniform Trade Secrets Act § 1(4)(ii), 14 U.L.A. 438 (1990) (requiring "efforts that are reasonable under the circumstances to maintain [the] secrecy" of the invention or information to qualify for trade secret protection). Such a choice, however, might preclude product evaluators from selling copies of this data.

If neither of these incentives were sufficient, foundations might step in to fund the collection of such data. Academic research centers could also move into the breach to fund independent evaluations, like the annual Airline Service Quality studies.²⁹⁹ Alternatively, government funding might be justified where a cost-benefit analysis indicated that the research was worthy, but the “public good” aspects of the information, i.e., that it would be available freely to everyone, would discourage the private sector from pursuing such studies.³⁰⁰ Research on auto safety,³⁰¹ toy safety,³⁰² airline on-time performance,³⁰³ or regarding food and medical practices would likely fall into this category.³⁰⁴ The

299. Professors from Wichita State University and University of Nebraska at Omaha conduct annual airline quality rating studies using data collected by the Department of Transportation. See *Complaints About Airlines Rise in Survey*, N.Y. TIMES, Apr. 11, 2000, at A20. These airline quality rating studies are available on the Internet at <http://www.unomaha.edu/~unoai/research/aqrindex.html>.

300. See Beales, *supra* note 181, at 536–37; Breyer, *supra* note 182, at 306–08; Darby & Karni, *supra* note 103, at 84; Eovaldi, *supra* note 18, at 1249. The private sector may often refuse to fund research because of its nature as a “public good,” whereby its value is generally available even to those who decline to pay for it. A public good is something whose consumption by one person does not diminish the quantity available for another. See generally Otto A. Davis & Andrew B. Whinston, *On the Distinction Between Public and Private Goods*, 57 AM. ECON. REV. 360 (May 1967) (Papers & Proceedings); Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 REV. ECON. & STAT. 387 (1954). But see Darby & Karni, *supra* note 103, at 87 (discussing the danger of government fraud).

301. See Matthew L. Wald, *U.S. Issues Vehicle Ratings on Tendency to Roll Over*, N.Y. TIMES, Jan. 10, 2001, at C4; National Highway Transportation and Safety Administration, *Rollover Resistance Ratings Information*, at <http://www.nhtsa.dot.gov/hot/rollover> (last visited Jan. 15, 2001). Sometimes, when data may upset potential customers, the industry may resist such research. See Keith Bradsher, *Auto Industry May Ease Safety Ratings Stance*, N.Y. TIMES, Sept. 19, 2000, at C16. The National Highway Transportation and Safety Administration was forced to abandon its network for early warnings of potentially severe safety defects due to federal budget cutbacks in the 1980s. See Robert H. Frank, *The Costs of Governing Less*, N.Y. TIMES, Aug. 26, 2000, at A13; Joan Claybrook, *Congress's Part in the Firestone Crisis*, N.Y. TIMES, Sept. 4, 2000, at A17.

302. See *Businesses Share Gadgets with Government for Tests of Toy Safety*, N.Y. TIMES, Dec. 20, 2000, at A29.

303. The Department of Transportation quantifies the timeliness of airline services as the percentage of an airline's flights that arrive within fifteen minutes of their scheduled arrival. See U.S. Dept. of Transportation, *On-Time Statistics*, at <http://www.bts.gov/ntda/oai> (last visited Jan. 15, 2001). These standards, however, are not without controversy. See Laurence Zuckerman, *U.S. Has Underestimated Flight Delays, According to a Study*, N.Y. TIMES, July 25, 2000, at C7; U. S. Dept. Of Transportation, *Air Carrier Flight Delays and Cancellations* (July 25, 2000) (discussing the lack of uniform methods for tracking and reporting flight delays), at <http://www.oig.dot.gov/audits/cr2000112.htm>.

304. See Margaret Gilhooley, *Constitutionalizing Food and Drug Law*, 74 TUL. L. REV. 815, 856 (2000); Reinhardt, *supra* note 289.

Internet would also increase the justification for government funding of product testing because information available online would be more accessible to the public.

c. Specialization and Professional Certifications

Because some buyers may care solely about the product's performance at one or two tasks, rather than its overall rating,³⁰⁵ compilers of customer ratings generally grade different aspects of a product or service separately. For example, Zagat's and *deja.com* provide separate ratings for a restaurant's food, atmosphere,³⁰⁶ and service, and *CR* rates many different relevant elements of product performance in its charts. Similarly, many respected retailers and magazines focus on one aspect of a product, e.g., "cutting edge" fashion or top-of-the-line performance for serious cyclists. Not only could SAs compile all of these specialized ratings, but they could also translate the comments previous customers made in forums — on- or off-line³⁰⁷ — into separate and distinct ratings for different uses.

In fact, most consumers seeking services from a professional are only concerned with the supplier's performance for that specialized task, rather than their skills outside that specialty.³⁰⁸ SAs could serve consumers well by enabling them to focus on specific performance qualities³⁰⁹ and documented expertise,³¹⁰ while ignoring competency in

305. The pursuit of pleasure may involve pursuing proxy preferences for particular styles or brands that have evolved to provide pleasure most effectively. See Bettman, et al., *supra* note 81, at 192 (citing Russell W. Belk, *Possessions and the Extended Self*, 15 J. CONSUMER RES. 139 (1988)).

306. These ratings could even include the conditions of the bathrooms! See Rick Marin, *Behind the 'M' and the 'W,' A New Style*, N.Y. TIMES, Aug. 2, 2000, at F1.

307. See *supra* text accompanying notes 261–64.

308. For example, someone seeking an uncomplicated divorce might prefer assistance from an experienced legal secretary to assistance from a newly minted former Supreme Court clerk.

309. The most relevant data might be statistics on how well the professional had performed historically and most recently with respect to the precise type of cases the customer cared about. Cf. Megan Barnett, *Judging Wall Street's Judges*, INDUSTRY STANDARD, May 8, 2000, at 90 (reporting on a website that evaluates earnings forecasts in real time); Cross, *supra* note 270. Of course, adjustments for the relevant risk factors would be necessary to prevent the data from being misleading. For example, medical results data should adjust for the initial condition of the patient. See Sage, *supra* note 201, at 1741–42. Similarly, statistics rating mutual funds should adjust for the varying levels of risk entailed in different investments. Mark Hulbert, *Conservative Steps, Liberal Gains*, N.Y. TIMES, Jan. 10, 1999, § 3, at 42. Even where certain services generate generally low ratings, like results from divorce trials, the relative ratings could still be useful. Furthermore, because service quality would vary over time, it would probably be useful to distinguish between ratings based on how recent they were, as eBay does when

less relevant areas.³¹¹ For example, one company has compiled a database of 400,000 people to help students find the best college for attaining the specific lifestyle they seek.³¹² Consumers could use the customized search profiles discussed below to sort product or service options based on any combination of different attributes.³¹³

2. Reporting Implicit Endorsements

Consumers also rely on the implicit endorsements of respected stores, magazines, or salespeople that sell, display, or use products without any explicit comment.³¹⁴ In fact, consumers may often rely more

it segregates ratings from the previous seven days, one month, and six months.

310. Consumers might also be interested in any certificates that a professional had earned that documented expertise in the specialty. *See* Moore, *supra* note 199, at 105–06; Cross, *supra* note 270. Such documented expertise could include certificates doctors received for completing residencies in specialties and sub-specialties, or LL.M. degrees that attorneys earned to indicate a year of additional specialized training in a subject like tax. *But see* Gellhorn, *supra* note 195, at 22–23. It might also include explicit endorsements by well-respected experts in a field. This use of endorsements is comparable to what is proposed for professional journal publications. *See, e.g.,* Beranrd J. Hibbitts, *Last Writes?: Reassessing the Law Review in the Age of Cyberspace*, 71 N.Y.U. L. REV. 615, 673 (1996); Bernard J. Hibbitts, *Yesterday Once More: Skeptics, Scribes, and the Demise of Law Reviews*, 30 AKRON L. REV. 267, 300 (1996); Elliot Marshall, *Varmus Circulates Proposal for NIH-backed Online Venture*, 284 SCIENCE 718 (1999); Robert Pear, *NIH Plan for Journal on Web Draws Fire*, N.Y. TIMES, June 8, 1999, at D1. It might also include any positions held or awards earned that indicated relevant skills and how recently they had earned each of the credentials. Ideally, professionals might also be identifiable by their personal styles of working with patients, clients, or customers. After all, just as some professionals are better at handling certain types of subject matters, some are also better at interacting with certain types of clients. *See* Sandeep Jauhar, *Even Doctor-Patient Relationships Can Be Dysfunctional*, N.Y. TIMES, Apr. 25, 2000, at F7.

311. *See* the Taoist tale read by Seymour to Franny, printed in J.D. SALINGER, *RAISE HIGH THE ROOF BEAM, CARPENTERS AND SEYMOUR: AN INTRODUCTION* 9-10 (1963). (suggesting that ideally, one focuses so well on important attributes that one is oblivious to unimportant features). Many irrelevant general requirements have spurred humorous criticisms of professional licensing. *See* Gellhorn, *supra* note 195, at 14 (“Georgia insists that those who seek to be commercial photographers must pass with flying colors a Wasserman test for syphilis.”).

312. *See* Lisa Guernsey, *The College Search Game, Spam Included*, N.Y. TIMES, Sept. 28, 2000, at G1 (discussing “best college picks” based on research from the Institute for Research on Higher Education).

313. *See infra* Section V.B.1

314. An analogous situation in the legal field is illustrated by the concern by academics that they publish their work in the most reputable journal. *See* Allen Cichanski, *Slacker Scholars*, N.Y. TIMES, July 22, 2000, at A14 (arguing that candidates are often judged by which publications they have been published in without anyone reading the actual articles). Yet consumers must be aware of the possibility of undisclosed paid product plugs. *Compare* Stuart Elliot, *A Mattel Doll Modeled After a*

on these retailer “brandings” than manufacturer brands.³¹⁵ SAs that label products to show such implicit recommendations could give consumers the confidence to consider new and lesser-known manufacturers’ products by labeling them with “icon” brands.³¹⁶ For example, SAs could label a restaurant as having a “Brooks Brothers” style or jewelry as having a “Wired Magazine” style.³¹⁷ SAs might also label products with the names of well-known and respected buyers that shoppers might want to imitate, for example, the linens used in the Waldorf Astoria hotel and the desk chairs purchased by Goldman Sachs. In addition, SAs could include the choices made by celebrities,³¹⁸ fictional characters, or anyone else that customers might want to emulate.³¹⁹ For example, SAs could supplement labels to help shoppers retrieve the lipstick worn by Monica Lewinsky on her 1999 20/20 interview with Barbara Walters³²⁰ and outfits worn by a favorite character on a TV show.³²¹ Irrespective of the objections of celebrities, the First Amendment appears to give SAs

Certain Singer Does a Turn on ‘Will & Grace.’ Is it Product Placement?, N.Y. TIMES, Nov. 16, 2000, at C10 (discussing a writer’s desire to feature a Mattel “Cher” doll in an episode of NBC’s sitcom *Will & Grace*) with Branch, *supra* note 280 (reporting the paid promotion of Campbell Soup on ABC’s *The View*).

315. See EVANS & WURSTER, *supra* note 11, at 152; McEnally & de Chernatony, *supra* note 106, at 12; Carol Pickering, *Old Money New Medium*, BUS. 2.0, Dec. 12, 2000, at 46. For example, teenage girls seeking hip fashion might rely on the tastes of buyers who use Girlshop.com or other similar online retailers. See Jennifer Couzin, *Life After Boo*, INDUSTRY STANDARD, July 3, 2000, at 104. Similarly, consumers will accept an unknown lawyer or consultant based on the reputation of their firm and select an article by an unknown author based on the reputation of the publication. *But see supra* note 251.

316. See McEnally & de Chernatony, *supra* note 106, at 21 (noting that brands that are icons for a particular image or style represent the fourth stage of brandings in the Goodyear model).

317. SAs could use these brand icons to identify other products that it judged to qualify for the image of the icon brand. See McEnally & de Chernatony, *supra* note 106.

318. See JULIET B. SCHOR, *THE OVERSPENT AMERICAN* (1998); Ruth La Ferla, *Who Stole Fashion’s Show?*, N.Y. TIMES, Sept. 12, 1999, § 9 at 1; Robin Pogrebin, *What’s in a Name? Money*, N.Y. TIMES, Nov. 18, 1996, at D1.

319. See Leslie Kaufman, *New Style Maven: 6 Years Old and Picky*, N.Y. TIMES, Sept. 7, 1999, at C1.

320. See *The Really Important Monica Questions*, NEWSWEEK, March 15, 1999, at 31.

321. For example, asseenin.com already provides extensive information about products featured on a number of television programs. See also Nancy Hass, *“Sex” Sells, in the City and Elsewhere*, N.Y. TIMES, Jul. 11, 1999, § 9, at 1; J.D. Biersdorfer, *Online Fans of ‘X-Files’ Know It’s the Clothes That Make the Show*, N.Y. TIMES, Nov. 4, 1999, at G9. Once manufacturers recognize that SAs are operating databases, they would likely offer to provide this data to SAs on request. See *supra* note 224.

free reign to use facts about the products celebrities have displayed in public.³²²

The value that consumers place on a product may also depend not only on who else uses it, but upon the number of other purchasers.³²³ Some may prefer a product, like a "Harry Potter" book or a book featured on *Oprah*, which they can discuss with many others.³²⁴ Others may prefer more exclusive goods. To enable consumers to search by this attribute, SAs could add product sales data to their databases.³²⁵

For buyers seeking a gift, the most relevant evaluation is that of the recipient, and thus many retailers have expanded their bridal registries to "any occasion" lists,³²⁶ meanwhile, companies like WishList.com have established online versions.³²⁷ Wives or husbands can aid their spouses with gift ideas, and retailers and SAs alike might consider mining these sites for their data.

Current case law would appear to protect the right of SAs to collect and use data about consumer shopping preferences, such as these online wish lists.³²⁸ If customers with gift registries desired greater privacy, then SAs could easily limit access by requiring a password to view gift data. Meanwhile, upscale stores could try to respond to free riding on their expert quality assessments in at least two ways. First, they might attempt to shift further toward private label products.³²⁹ Second, they

322. See Volokh, *supra* note 180, at 1069–70.

323. See CASS R. SUNSTEIN & EDNA ULLMANN-MARGALIT, SOLIDARITY IN CONSUMPTION (John M. Olin Law & Economics Working Paper No. 98, May 2000), available at http://papers.ssrn.com/paper.taf?abstract_id=224618. One can call a product a "partnership" good if its value to a buyer depends on its purchase by a specific set of other buyers. "Fraternity" goods are those whose value increases as more members of a group, such as students or athletes, buy it, but whose value decreases as all others buy it. See *id.* at 9.

324. These can be called "solidarity" goods. See *id.* at 2; see also Robert H. Frank, *When Less is Not More*, N.Y. TIMES, July 17, 2000, at A19; Max, *supra* note 279.

325. Compiling accurate data in this area, however, would require efforts to prevent fraud. See David D. Kirkpatrick, *Book Agent's Buying Fuels Concern on Influencing Best-Seller Lists*, N.Y. TIMES, Aug. 23, 2000, at C1.

326. See David W. Chen, *Wishful Thinkers Are Using Gift Registries for All Occasions*, N.Y. TIMES, July 27, 1997, § 3, at 10.

327. See Catherine Greenman, *Will Gift Lists Click?*, N.Y. TIMES, Nov. 18, 1999, at G21; Michelle Slatalla, *Sending a Wish List: Is It Nasty or Nice?*, N.Y. TIMES, Feb. 3, 2000, at G4; Bob Tedeschi, *Letters to Santa Are No Longer Necessary*, N.Y. TIMES, Nov. 15, 1999, at C18.

328. See *Dwyer v. Am. Express Co.*, 652 N.E.2d 1351, 1356 (Ill. App. Ct. 1995); *Shibley v. Time, Inc.*, 341 N.E.2d 337 (Ohio Ct. App. 1975).

329. Merely re-labeling standard products would seem unlikely to work because the expert buyers working for SAs would be able to recognize and label them in their databases as such. While manufacturers could produce significantly different styles for different stores, that would not be easy or inexpensive. See Alba et al., *supra* note 10, at

could emphasize their comparative advantage in helping customers find the most suitable products by designing superior search profiles, as discussed in Section V below.

C. Collaborative Filtering Data: Implicit Features

In some cases, shoppers browsing for a product, like a book or CD, may be unable to articulate some of the key attributes of what they are seeking, particularly the taste-based “experience” qualities discussed above.³³⁰ The relatively new and powerful process of collaborative filtering (“CF”), however, is now permitting consumers to search for products based on the implicit recommendations of others who appear to have very similar tastes.³³¹ CF software solicits user preferences implicitly by asking users to rate previous and subsequent purchases. Then it identifies all other users in its database who exhibit similar preferences. From this “similar tastes” group, it can retrieve ratings of a specified product or identify the item rated highest by the group. These recommendations appear more likely to predict what consumers will like than even the expert critics whose tastes often differ from consumers’.³³² Similar systems might help consumers identify new products most likely to complement products they already own.³³³

49–50.

330. See *supra* notes 103–04 and accompanying text.

331. The phrase “collaborative filtering” was coined by the developers of Tapestry, which was one of the first computerized recommendation systems. CF simply means that people collaborate to help one another to identify preferred options by filtering out less worthwhile ones based on reactions of those who appear to have similar interests. See David Goldberg et al., *Using Collaborative Filtering to Weave an Information Tapestry*, COMM. ACM, Dec. 1992, at 61; see also Malcolm Gladwell, *The Science of the Sleeper*, THE NEW YORKER, Oct. 4, 1999, at 48; Bamshad Mobasher et al., *Automatic Personalization Based on Web Usage Mining*, COMM. ACM, Aug. 2000, at 142; *Recommender Systems*, COMM. ACM, Mar. 1997, at 56. Some of the better known examples of CF include Net Perceptions and Firefly. See Asim Ansari, et al., *Internet Recommendation Systems*, 37 J. MARKETING RES. 363 (2000). Some characterize CF as a form of “cluster analysis.” See Dawn Iacobucci et al., *Recommendation Agents on the Internet*, J. INTERACTIVE MARKETING, Summer 2000, at 2.

332. See Morris B. Holbrook, *Popular Appeal Versus Expert Judgments of Motion Pictures*, 26 J. CONSUMER RES. 144 (1999); Mark Frauenfelder, *Nouveau Niche*, INDUSTRY STANDARD, Oct. 30, 2000, at 118; Joseph A. Konstan et al., *GroupLens: Applying Collaborative Filtering to Usenet News*, COMM. ACM, Mar. 1997 at 77; Robin Pogrebin, *Broadway’s Critic-Proof Composer Says This Is His Moment*, N.Y. TIMES, Oct. 6, 1999, at E1.

333. For example, databases could use labels to match a tie with a particular shirt or a style of flatware with a particular china pattern. SAs might obtain these associations from explicit labeling by manufacturers, independent experts, or customers on website communities. For example, Cisco Systems’ marketplace site has a real-time algorithm

CF has become more practical as technology has diminished the cost and difficulty of collecting and processing consumer transactional data³³⁴ and rewarding respondents³³⁵ enough to overcome their general apathy.³³⁶ Moreover, CF database compilers are finding it more practical to correct the error-prone presumptions of primitive algorithms³³⁷ — that all of a consumer's purchases represent his or her preferred choices³³⁸ — when consumers are disappointed with purchases or when they have purchased items for others.³³⁹ CF compilers are also starting to help customers benefit from the use of both explicit and implicit data.³⁴⁰ As

that alerts customers to incompatibilities with legacy equipment and then proposes alternatives. See Adrian J. Slywotzky & David J. Morrison, *The Missing Link*, INDUSTRY STANDARD, July 10–17, 2000, at 208. Databases could also include the implicit associations provided in store displays and magazine photos, and worn by television characters or celebrities. Cf. *supra* text accompanying notes 318–21. Customers who already own one of the associated products could use this feature to find a recommended match, and those buying the first of the linked items could use it for guidance in purchasing the others.

334. See Jerry Kang, *Information Privacy in Cyberspace Transactions*, 50 STAN. L. REV. 1193, 1224–33 (1998). While salespeople have always been able to rely on their memories or notes, the former was limited by their brain capacity, and the latter required significant administrative time and resources. The increasing prevalence of wireless phones and toll-free numbers, however, may change this. See *supra* note 281; see also Julia Lawlor, *Reducing the Guesswork of Holiday Rentals*, N.Y. TIMES, Apr. 13, 2000, at G1 (reporting that vacation rental websites are soliciting evaluations of rental properties from customers).

335. SAs maintaining CF databases could follow the lead of firms like BizRate.com, which use automated systems to survey consumers after their experiences with online retailers and offer a possible prize for participating. See Evantheia Schibsted, *The Rating Game*, BUS. 2.0, Sept. 12, 2000, at 280.

336. See Konstan et al., *supra* note 332, at 84.

337. See Marko Balabanović & Yoav Shoham, *Fab: Content-Based, Collaborative Recommendation*, COMM. ACM, Mar. 1997, at 66, 69.

338. This is analogous to presuming that readers would give relatively high ratings to those news articles that they spend a relatively long time reading. See Konstan et al., *supra* note 332, at 82; see also Iacobucci et al., *supra* note 331, at 3 (arguing that current CF agents are extraordinarily primitive).

339. See Susan Stellin, *Internet Companies Learn How to Personalize Service*, N.Y. TIMES, Aug. 28, 2000, at C8 (“To reduce the impact of errant data, Amazon allows users to exclude certain purchases from their profile; that way, a Pokémon game purchased for a niece will not skew a pattern of buying mystery novels and Woody Allen videos.”). Blockbuster withdrew its Take10 recommendation system, which did not make such corrections and failed to achieve customer acceptance. See West et al., *supra* note 84, at 291–92.

340. See Berry Smyth & Paul Cotter, *A Personalized Television Listings Service*, COMM. ACM, Aug. 2000, at 107 (“Mixing the collaborative recommendation approach with content-based filtering seems to bring out the best in both methods.”); see also Balabanović & Shoham, *supra* note 337; Dan Ariely et al., Which Intelligent Agents are Smarter? An Analysis of Relative Performance of Collaborative and Individual Based Recommendation Agents 29 (unpublished manuscript, 2000), available at

developers experiment with new varieties of CF systems³⁴¹ and CF becomes increasingly more effective,³⁴² network effects may create a danger of monopolization and sabotage could also arise, as discussed below.

1. Network Effects and Winner-Take-All Markets

Whether CF databases will become natural monopolies depends on many factors. All other things being equal,³⁴³ a CF database with more entries should produce better results than a smaller one because it is more likely to include closer matches for any given customer. The differences may be insignificant, however, when the smaller database includes a large enough number of individuals to produce excellent results.³⁴⁴ Still, small differences may matter for major purchases like a two-week vacation package. Furthermore, as customers seek to match increasing numbers of search criteria, the largest CF databases are likely to produce significantly more accurate results.

Two factors suggest that consumers will seek matches on more criteria. First, because consumer tastes in different product markets are often related, CF databases should be more effective when they combine data from multiple, potentially related product markets,³⁴⁵ including restaurants, films, vacation spots, etc. Moreover, to the extent that such correlations are substantial but privacy rules prohibit firms from sharing

<http://faculty.fuqua.duke.edu/%7Ejglynch/Working%20Papers/SALearning.pdf>.

341. CF systems can employ more sophisticated ratings than the binary “purchased” versus “not purchased” data most common today. See Iacobucci et al., *supra* note 331, at 4. For example, they can employ many different mechanisms for measuring similarities and many different algorithms for generating predictions based on such similarities. See *id.* at 5–7.; see also Ansari et al., *supra* note 331, at 372.

342. But see Susan Kuchinskas, *One-to-(N)one?*, BUS.2.0, Sept. 12, 2000, at 141, 148 (questioning the effectiveness of CF).

343. Of course, all things are unlikely to be equal, and factors such as trust and familiarity with a retailer might influence consumers more than anything else. See Alina M. Chircu et al., *Trust, Experts, and E-Commerce Intermediary Adoption* (forthcoming in Proceedings of the 2000 American Conference on Information Systems, Long Beach, CA, August 10–13, 2000), at http://webfoot.csom.umn.edu/faculty/phds/achircu/ResearchWeb/cdk_amcis_2000.pdf.

344. Presumably, the effectiveness of a CF database would increase asymptotically with the number of entries it included until it reached a point of diminishing marginal returns.

345. See Michael Grebb, *Behavioral Science*, BUS. 2.0, Mar. 2000, at 112, 114 (describing a successful suggestion to “a customer who was purchasing a \$28 shirt that he might like a \$130 cigar humidor — based on the preferences of people with similar tastes in shirts”)

data with other SAs,³⁴⁶ mergers and consolidation might be undertaken to facilitate the creation of such multi-market transactional databases.

This opportunity for aggregating such data undoubtedly motivated Amazon to offer to host other retailers on its site and handle their transactions.³⁴⁷ The infomediary firms proposed by Hagel and Singer³⁴⁸ would achieve similar results on the customer's side. Consumers' satisfaction with CF systems might well override any of their privacy concerns about data aggregation. Second, because consumers' preferences are often significantly affected by their most recent purchases,³⁴⁹ consumers might seek recommendations from only those who had made similar recent purchases.

Many factors may also work against the emergence of natural monopolies. Diseconomies of scale and scope may make it impractical for a single entity to focus its resources on evaluating too many different facets of each product choice.³⁵⁰ If so, specialized databases might emerge to focus on all of the variables most important to a target segment of customers, offering them superior quality specialized service.³⁵¹ Network effects — and the creation of natural monopolies — may also be limited by consumers' desire to compartmentalize different aspects of their purchasing decisions among multiple SAs to protect their privacy.

If quasi-natural monopolies do arise, antitrust laws will require policymakers to prevent firms with market power from bundling their services to distort competition in related markets. These concerns about bundling services highlight the need for ways to distinguish among separate product or service markets and to identify arrangements that

346. See Press Release, Federal Trade Commission, F.T.C. Sues Failed Website, Toysmart.com, for Deceptively Offering for Sale Personal Information of Website Visitors (July 10, 2000), <http://www.ftc.gov/opa/2000/07/toysmart.htm>; Matt Richtel, *Toysmart.com in Settlement with F.T.C.*, N.Y. TIMES, July 22, 2000, at C1.

347. See Leslie Kaufman, *Amazon.com Plans a Transformation to Internet Bazaar*, N.Y. TIMES, Sept. 30, 1999, at A1; see also Jeffrey Benner, *Is Amazon's Honor Plan Honorable?*, WIRED NEWS (Feb. 6, 2001), at <http://www.wired.com/news/print/0,1294,41660,00.html>.

348. HAGEL & SINGER, *supra* note 6.

349. See *infra* note 383 and accompanying text.

350. When an entity attempts to employ uniform standards over an increasingly large data set, diseconomies of scale arise and threaten the consistency of process. This effect has long been evident in the context of directory search engines, like Yahoo!, which attempt to categorize websites uniformly. See Steve G. Steinberg, *Seek and Ye Shall Find (Maybe)*, WIRED, May 1996, at 108 (noting, for example, the difficulty of deciding whether the Messianic Jewish Alliance of America [also known as "Jews for Jesus"] should be classified under "Judaism").

351. See Porter, *supra* note 116, at 69.

represent illegal tying.³⁵² Although it might not be in the public interest to treat the information in such databases as essential facilities³⁵³ for other businesses, this issue may deserve further analysis.³⁵⁴

2. Sabotage of Collaborative Filtering Databases

As CF data becomes more and more useful to buyers and sellers, SAs may well compete intensely based on the quality of their CF data and predictive algorithms.³⁵⁵ Although there is no way to ensure that all consumer entries included in a CF database are accurate, deterring the intentional submission of false data would clearly be in the public interest. Current tort laws may already forbid such submissions as tortious interference with business interests,³⁵⁶ but it would also probably be helpful for government bodies to help businesses spread the word that the “pollution” of CF databases, by intentionally submitting false data, is prohibited by law.

D. Managing Congestion

Whether or not eBay was likely to face congestion problems due to Bidder’s Edge and others,³⁵⁷ congestion on the Internet is not a trivial problem.³⁵⁸ Moreover, it will probably get worse if consumers increasingly rely on shopping bots to make Internet price comparisons,³⁵⁹ leading merchants to employ “pricebots” to adjust their prices based on the continuous monitoring of their competitors.³⁶⁰ If retailers felt forced to add additional capacity to ensure that bona fide customers were not

352. In fact, concerns about bundling CF services with other services appear quite analogous to the complexities of tying in the computer software industry, a key issue in the *United States v. Microsoft* trial. See *supra* note 32.

353. See generally Abbott B. Lipsky, Jr. & J. Gregory Sidak, *Essential Facilities*, 51 STAN. L. REV. 1187 (1999).

354. See Thomas A. Piraino, Jr., *An Antitrust Remedy or Monopoly Leveraging by Electronic Networks*, 93 NW. U. L. REV. 1 (1998).

355. See *supra* note 341.

356. See W. PAGE KEETON ET AL., *supra* note 209, § 130, at 1009, 1018–19.

357. See *supra* notes 172–73 and accompanying text.

358. The use of Napster on college campuses has probably provided the best illustration of Internet congestion. See Paul Heltzel, *Indiana! The Musical*, BUS.2.0, July 11, 2000, at 235; see also Jeffrey K. MacKie-Mason & Hal R. Varian, *Pricing The Internet*, in PUBLIC ACCESS TO THE INTERNET 269 (Brian Kahin & James Keller eds., 1995); Jeffrey K. MacKie-Mason & Hal R. Varian, *Economic FAQs About the Internet*, J. ECON. PERSP., Summer 1994, at 75, 84–85.

359. See *infra* note 474 and accompanying text.

360. See Jeffrey O. Kaphart & Amy R. Greenwald, *When Bots Collide*, HARV. BUS. REV., July–Aug. 2000, at 17.

blocked from their sites, they would have a strong case for recovering their additional capacity expenses from those parties causing the unwanted congestion.³⁶¹

It is not clear that tort law provides an efficient way for retailers to prevent such congestion. In July 1996, a Best Buy store in Reston, Virginia had police remove an individual who was copying down prices of its television sets, but a Fairfax judge quickly dismissed trespassing charges without even considering whether the customer's behavior had been disruptive.³⁶² Some earlier cases, however, have gone the other way.³⁶³ Nuisance laws might discourage congestive practices, but leaving these issues to ad hoc decisions by judges does not appear to be the most efficient alternative.³⁶⁴

Ideally, technology will solve the problem.³⁶⁵ A solution may arise in response to the comparable problem created by "spiders" and other web crawlers used by search engines to index the web.³⁶⁶ In the interim, firms may adopt new strategies for managing the problem. EBay already permits aggregators to search its website during off-peak hours and to do searches "on demand" for buyers.³⁶⁷ Firms might also create alternative

361. See *eBay v. Bidder's Edge*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000); see also Carl S. Kaplan, *Treat EBay Listings as Property? Lawyers See a Threat*, N.Y. TIMES CYBERLAW J., July 28, 2000, at <http://www.nytimes.com/library/tech/00/07/cyber/cyberlaw/28law.html> (discussing the amicus brief submitted by Professor Richard Epstein on behalf of the plaintiffs in *eBay v. Bidder's Edge*); O'Rourke, *supra* note 182, at 1981.

362. See Buchholz, *supra* note 184. When the customer later sued Best Buy for malicious prosecution, a jury appeared to believe the testimony of Best Buy employees that the customer was disruptive and found for the store. See Patricia Davis, *Price-Recording Customer Loses Suit Against Best Buy*, WASH. POST, Mar. 18, 1998, at B1.

363. See *Culhane v. State*, 668 S.W.2d 24 (Ark. 1984) (upholding the use of a criminal trespass statute to prosecute comparison shoppers); *Mosher v. Cook United, Inc.*, 405 N.E.2d 720 (Ohio 1980) (same). But see O'Rourke, *supra* note 183 (concluding that a traditional action in trespass applied by analogy to websites is unlikely to be successful in preventing entry by spiders).

364. But see HUBER, *supra* note 169.

365. See Todd G. Hartman, *The Marketplace vs. the Ideas: The First Amendment Challenge to Internet Commerce*, 12 HARV. J.L. & TECH. 419, 462-64 (1999); Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 TEX L. REV. 553 (1998).

366. See Introna & Nissenbaum, *supra* note 60, at 183 n.18 ("[T]here seems to be a generally optimistic view among experts that we will develop technical mechanisms to deal with [this congestion], for example, proposals to devise extensions to HTTP, or parallel spiders.") A solution may also arise in response to the potential problem of congestion on the unlicensed 2.4 gigahertz radio spectrum band. See John Markoff, *New Economy*, N.Y. TIMES, Oct. 30, 2000, at C5 (discussing the increasingly popular 802.11b wireless ethernet standard).

367. See *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058, 1062, 1067-68 (N.D. Cal. 2000).

URLs or listservers to provide price changes or other information in an efficient manner for a fee.

Alternatively, trade associations and government agencies could try to formulate guidelines to minimize congestion by setting a level of frequency of pricebot requests that would represent *prima facie* evidence of a nuisance. Retailers who offered access to their freely available data on reasonable terms should then be permitted to recover damages for harassment or nuisance from those who congested their sites beyond the designated levels.

V. DEFINING A BUYER'S SEARCH PROFILE

Some consumers already know the combination of attributes they are seeking in their desired product. Many others, however, are likely to desire assistance when trying to compile an effective search profile, i.e., the characteristics on which to focus and how much weight to give to each. Most consumers have learned to adopt strategies and construct preferences to make their searches manageable, if somewhat less accurate,³⁶⁸ rather than bucking the limits of their information processing abilities³⁶⁹ to pursue their optimal choice.

One difficulty in designing precise search profiles is that it requires consumers to be clear about what they want,³⁷⁰ including all of the conditions, goals, and aversions relevant to their purchasing decisions.³⁷¹ Then they must translate these into precisely quantified preferences for particular product features. Given historical constraints on information processing, the incremental benefits from such efforts are unclear, and consumers are rarely tempted to undertake such a project.

368. See Amos Tversky, *Contrasting Rational and Psychological Principles in Choice*, in *WISE CHOICES: DECISIONS, GAMES, AND NEGOTIATIONS* (Richard J. Zeckhauser et al. eds., 1996) ("[P]eople do not maximize a pre-computed preference order, but construct their choices in light of the available options."); see also Bettman et al., *supra* note 81, at 190–92 (discussing alternative search strategies).

369. See *supra* text accompanying notes 79–111.

370. See Payne et al., *supra* note 83, at 245, 262 (noting that psychology "is still grappling with how to handle situations in which people might not know what they want") (citing Baruch Fischhoff, *What Do Psychologists Want? Contingent Valuation as a Special Case of Asking Questions*, in *DETERMINING THE VALUE OF NON-MARKETED GOODS: ECONOMIC, PSYCHOLOGICAL, AND POLICY RELEVANT ASPECTS OF CONTINGENT VALUATION METHODS* 209 (Raymond J. Kopp et al. eds., 1997)).

371. This generally would require an internal archeological-like excavation of one's self, see Gregory et al., *supra* note 83, at 179, including both unclear preferences and clear preferences, called "crystallized" values by researchers on consumer attitudes. See Payne et al., *supra* note 83, at 263 (citing HOWARD SCHUMAN & STANLEY PRESSER, *QUESTIONS AND ANSWERS IN ATTITUDE SURVEYS: EXPERIMENTS ON QUESTION FORM, WORDING, AND CONTEXT* (1981)).

SAs, however, can substantially improve the accuracy of consumer decision-making in two ways. First, computers have the information processing power to use a profile to evaluate each and every option. Second, SAs can offer consumers new and easier ways to construct optimal search profiles that (1) eliminate all selections that fail to meet their minimum requirements, and (2) rank acceptable options based on the intensity of shoppers' preferences for relevant attributes.³⁷² Section A discusses the pursuit of these two goals in the absence of SA assistance, and Section B discusses the new options that SAs can offer. Section C analyzes some potential dangers to competition in this area.

A. Identifying Existing Conditions and Preferences

1. Absolute Requirements

Although consumers generally "want it all," most are willing to accept items that lack some desired features or include some undesirable characteristics.³⁷³ In fact, most shoppers expect to make tradeoffs among their multiple preferences for product attributes. Consumers, however, usually have some absolute requirements, i.e., "non-compensable" preferences.³⁷⁴ These may include budgetary limits, timing deadlines, or spatial and geographic restrictions.³⁷⁵ Additional constraints may arise from strong consumer tastes, like an insistence on wearing only black clothes or an abhorrence of country and western music.

Consumers are usually aware of most of these absolute requirements before they consider a purchase, but they may overlook or be unable to ascertain others, such as whether a new purchase, like piece of computer software, is compatible with their relevant existing possessions. In addition, shoppers may lack the expertise to recognize the significance of some conditions. For example, a novice cyclist may be unaware of what features to demand or refuse when purchasing a bicycle for a long trip through unusual terrain.

372. This two-part strategy for building search profiles is common. See Widing & Talarzyk, *supra* note 89, at 127; see also *supra* note 85.

373. See *supra* note 78 and accompanying text.

374. That is, the absence of such a desired attribute or the presence of a despised one will automatically exclude the option from further consideration. The difference between compensatory and non-compensatory strategies is discussed in Bettman et al., *supra* note 81, at 190.

375. These may also include allergies or legal restrictions on purchases, such as limits on what one can buy with food stamps. Other limits may arise due to a buyer's expertise or limited talents.

2. Compensatory Preferences: Goals and Conditions

Selecting and weighting compensatory preferences for ranking a buyer's acceptable choices is a more difficult task. To do this with precision, consumers would, at least in theory, need to ascertain their "utility function"³⁷⁶ and translate it into a formula for evaluating each of their options in a product market.³⁷⁷ Compiling their utility function would generally require them to articulate both their fundamental and derivative goals³⁷⁸ and the appropriate weights for each. Constructing the latter product-specific formula would seem to require them to (a) identify each of the attributes of the product that they find significant, (b) attach a subjective value to each possible variation of that attribute, and (c) assign a weight to each feature based on its relative importance.³⁷⁹

This project would represent an impractical,³⁸⁰ if not impossible task.³⁸¹ Moreover, the inherent subjectivity of this process is apparent

376. See *supra* note 95.

377. This is called the "weighted average" strategy. See JOHN W. PAYNE ET AL., *THE ADAPTIVE DECISION MAKER* (1993); Amos Tversky & Daniel Kahneman, *Rational Choice and Framing of Decisions*, in *DECISION MAKING: DESCRIPTIVE, NORMATIVE, AND PRESCRIPTIVE INTERACTIONS* 167 (David E. Bell et al. eds., 1988); Deborah Frisch & Robert T. Clemen, *Beyond Expected Utility: Rethinking Behavioral Decision Research*, 116 *PSYCHOL. BULL.* 46 (1994).

378. Awareness of one's fundamental goals is most important when consumers must choose among items that are facially incommensurable, often only because of a lack of information. See Schwartz, *supra* note 3, at 82–83; Leo Katz, *Incommensurable Choices and the Problem of Moral Ignorance*, 146 *U. PA. L. REV.* 1465, 1465–67 (1998). But see Martha Nussbaum, *Flawed Foundations: The Philosophical Critique of (A Particular Type of) Economics*, 64 *U. CHI. L. REV.* 1197 (1997). See also Stern, *supra* note 103, at 207. Derivative goals represent the most effective means for serving fundamental goals. For example, shoppers in pursuit of love may choose products based on their ability to signal attributes most desirable to potential mates. Psychologists have recognized that consumers often seek to make purchases that signal success, as by their exceptional costliness. Products conveying status are often called "positional" goods. See Bettman et al., *supra* note 81, at 192.

379. Many dating services take this approach when they ask clients what attributes they seek in a partner and how important each one is. Real estate brokers also try to capture this kind of a profile. See WILSON, *supra* note 132, at 118–22. Yet assigning relative weights to different attributes can be so difficult that profiles often default to giving equal weight to all attributes. This is the solution that the standard major league baseball contract adopted in 1981 when it set its formula for ranking players for the purpose of free agent compensation. See Joseph A. Reaves, *Rankings Provide Food for Baseball Starved*, *CHI. TRIB.*, Oct. 23, 1994, at 13.

380. See Mary Frances Luce et al., *Emotional Trade-Off Difficulty and Choice*, 36 *J. MARKETING RES.* 143 (1999); Schwartz, *supra* note 3.

381. See Alba et al., *supra* note 10, at 42. Analogous reasons appear to lead consumers to favor simple pricing plans, at least in the telecommunications market, where researcher Andrew Odlyzko has observed that "complicated pricing and quality differentiation strategies have been applied and continue to be applied for expensive or

from the controversy generated when magazines try to rate the best colleges or cities.³⁸² Finally, additional complexity arises because many consumers find variety and change pleasing, if not productive.³⁸³ Therefore, their preferences for many products are often significantly affected by their most recent purchases in the product area.³⁸⁴

*B. Evaluating, Modifying, Anticipating,
and Applying Preferences*

Under these circumstances, even sophisticated shoppers may want assistance with the tasks just discussed, particularly with measuring conditions, assessing the consistency and consequences of their preferences, and understanding the details of a product market.

infrequent purchases. On the other hand, the search for optimal efficiency has usually been abandoned in favor of simplicity for small and frequent transactions." Andrew Odlyzko, *The History of Communications and Its Implications for the Internet* 7 (June 16, 2000), at <http://www.research.att.com/~amo/doc/history.communications0.pdf>.

382. Every year, *U.S. News and World Report* releases controversial college rankings. See, e.g., Peter Applebaum, *Fighting the Rankings of a College Guide*, N.Y. TIMES, Jan. 5, 1997, § 4A, at 16; Roberto Sanchez, *Getting to the Bottom of Top-College Rankings*, SEATTLE TIMES, Sept. 27, 1999, at A1; Bill Workman, *Stanford Uses Web to Counter Rankings: Site Rebuts "Inaccurate" U.S. News Survey*, S.F. CHRONICLE, Apr. 19, 1997, at A18. Similarly, *Money* regularly draws fire from critics for its annual rankings of which cities are the "best places to live." See, e.g., Editorial: "Best Places To Live" (Nah), S.F. EXAMINER, June 13, 1997, at A22; Neil Genzlinger, *Best Place to Live (Arbitrary Division)*, N.Y. TIMES, June 28, 1998, §14NJ, at 1.

383. See Rebecca K. Ratner et al., *Choosing Less-Preferred Experiences for the Sake of Variety*, 26 J. CONSUMER RES. 1 (1999). Meanwhile, consumers generally have a hard time predicting their desire for variety. See Itamar Simonson, *The Effect of Purchase Quantity and Timing on Variety-Seeking Behavior*, 27 J. MARKETING RES. 150 (1990).

384. This dynamic, possibly cyclic, nature of tastes is what makes it so difficult for film makers, among other marketers, to predict precisely what products a consumer will want without knowing their customers' most recent choices in the market segment. Because films must be selected and produced many months, if not years, before they come out, it is impossible to know in advance what purchases movie viewers will have made in the previous weeks or months. This may be one of the primary reasons that predicting the success of Hollywood films is a particularly difficult task. See Virginia Postrel, *The Golden Formula for Hollywood Success*, N.Y. TIMES, Mar. 23, 2000, at C2 (discussing Professor Arthur De Vany's statistical research of the movie industry).

1. Prompts, Examinations, and Suggested Defaults

Most shoppers are likely to benefit from prompts, which anticipate responses with default answers.³⁸⁵ For example, doctors, real estate brokers, and investment advisors often give new clients checklists of possible conditions and objectives to jog their memories for pertinent information.³⁸⁶ Moreover, improvements in voice recognition technologies should soon allow these questions to be asked and answered orally, even by telephone, from remote locations and at convenient times.³⁸⁷ Alternatively, animated electronic agents may be able to handle this task,³⁸⁸ particularly if they can make the small talk that builds customer trust.³⁸⁹ In addition, expert systems will be able to process answers to initial questions quickly enough to allow them to offer anticipated default answers to later questions³⁹⁰ and automatically edit out inapplicable ones.³⁹¹ Moreover, questioning could reveal consumer preferences implicitly by asking consumers to choose which of two options was better, in much the way that eye doctors establish a

385. See Payne et al., *supra* note 83, at 245. Prompting should help alleviate problems due to myopic and inappropriate decision frames. See Payne et al., *supra* note 83 at 251–52 (citing Baron, *supra* note 87, and Michael L. DeKay & Gary H. McClelland, *Probability and Utility Components of Endangered Species Preservation Programs*, 2 J. EXPERIMENTAL PSYCHOL.: APPLIED 60 (1996)).

386. See, e.g., Jane E. Brody, *A Case for Expanding the Doctor's Checklist*, N.Y. TIMES, May 2, 2000, at F7; WILSON, *supra* note 132, at 118–22. In addition, when making major hiring decisions, both the employer and the job applicant may benefit from asking the potential employee to take a personality test. See Annalee Newitz, *The Personality Paradox*, INDUSTRY STANDARD, Oct. 2, 2000, at 210.

387. See *supra* note 155.

388. See David J. Wallace, *She's Only Code and Pixels, But She Can Help You Shop*, N.Y. TIMES, Sept. 20, 2000, at H8 (describing “an electronic agent who performs what analysts call ‘guided selling,’ or ‘directed selling,’ in which a Web site answers questions and advises buyers on a purchase”).

389. See Justine Cassell & Timothy Bickmore, *External Manifestations of Trustworthiness in the Interface*, COMM. ACM, Dec. 2000, at 50, 55.

390. See Haym Hirsh et al., *Learning to Personalize*, COMM. ACM, Aug. 2000, at 102 (reporting that recognition of behavior patterns helps systems predict users' next move). These systems could also incorporate data about others in similar circumstances. See Paul B. Kantor et al., *Capturing Human Intelligence in the Net*, COMM. ACM, Aug. 2000, at 112. Such customized behavior may well “delight” customers of such automated systems. See Matthew L. Meuter et al., *Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters*, J. MARKETING, July 2000, at 50, 60.

391. For example, software from Kana Communications Systems uses Bayesian logic to anticipate answers to questions that haven't been asked. See Wallace, *supra* note 388. Systems could also permit customers to pause the examination to ask for detailed descriptions of any feature they were questioned about or tradeoffs between different features, as circuitcity.com already offers. See Seybold, *supra* note 224.

patient's optimal lens features.³⁹² Many manufacturers' websites already offer "configurators" to help consumers create search profiles for seeking the best product matches on the website.³⁹³

In many cases, consumers may also want an expert to observe and assess their condition.³⁹⁴ For example, they might desire a beauty consultant or tennis pro³⁹⁵ to examine their strengths and weaknesses and recommend product attributes best suited for their needs.³⁹⁶ Experts could assist online shoppers by conducting remote examinations³⁹⁷ or by supervising self-examinations by consumers. For example, IC3D.com asks customers to measure the eleven specific body lengths it uses to produce customized jeans.³⁹⁸ To facilitate expert assessments, consumers may also submit photos,³⁹⁹ create virtual models,⁴⁰⁰ or even undergo holographic body scans.⁴⁰¹

As indicated above, probably the most difficult task facing consumers is quantifying the relative weights of different preferences. Fortunately, new technologies can provide helpful tools. For example,

392. For example, real estate agents could clarify buyer profiles by offering views of "virtual homes" with varying features to reveal unconscious preferences.

393. See Kim Cross, *The Configurator: Need Options? Go Configure*, BUS. 2.0, Feb. 2000, at 121; Jason Anders, *Yesterday's Darling*, WALL ST. J., Oct. 23, 2000, at R8 (reporting on W.W. Granger's Motormatch program, which helps buyers find the motor with the right specifications from among its 4,000 motors).

394. Well-trained experts can notice important information that customers may fail to state. Cf. Leslie Berger, *By Observing Art, Med Students Learn Art of Observation*, N.Y. TIMES, Jan. 2, 2001, at F5.

395. See, e.g., Odlyzko, *supra* note 381, at 28-29.

396. For example, consumers might want a shoe salesperson to watch them walk to identify any foot problems and translate them into particular shoe attributes that they should demand or avoid. Similarly, patients might want a dentist to analyze their saliva to help determine what chemical to seek in a toothpaste or mouthwash to neutralize bad breath. Because of the general superiority of real space for examinations and because many consumers find it easier to sample products rather than identifying needs in the abstract, many e-commerce businesses have established affiliations with brick-and-mortar entities. See, e.g., Jane Hodges, *Bricks for Branding*, BUS. 2.0, Feb. 2000, at 95, 97 (observing that "stores are customer laboratories" that permit Bluemercury's cosmetics buyers to try on products).

397. Where physical examinations are required, advanced audio and video devices already permit experts to make high-quality examinations from afar.

398. See Michelle Slatalla, *A Personal Tailor for Denimed Masses*, N.Y. TIMES, July 27, 2000, at G4.

399. For example, the combination of digital cameras or scanners and the Internet now permit furniture shoppers to share pictures of a room and its current furniture instantly with interior decorators anywhere in the world.

400. See Stacy Kravetz, *If That's Me in the E-Dressing Room, Why Doesn't This Fit?*, N.Y. TIMES, Sept. 20, 2000, at H22.

401. See *Brooks Brothers Body Scan*, BUS. 2.0, Jan. 23, 2001, at 24 (discussing www.imagetwin.com).

to help federal government employees identify the best health care plan for their needs, the Office of Personnel Management offers them use of PlanSmartChoice software, which, in 2000, worked in four steps. First, users were asked to select from a list the features they considered most important. Next, they were asked to consider how important it was to find a choice that was rated highly with respect to each of those attributes. Third, users were asked to compare pairs of offerings and to quantify how strongly they favored one option over the other. PlanSmartChoice software then used this consumer input to estimate weightings, generate ratings, and rank the available plans.⁴⁰²

A more promising alternative for managing this task is the opportunity that some SAs give consumers to select a profile based on a few descriptive terms about themselves. For example, consumers shopping for a camera using software developed by companies like frictionless.com can select the profile for a “budget buyer,” “beginner,” or “expert,” and use the set of default preference weightings suggested by the SA for each.⁴⁰³ In fact, SAs can construct profiles to reflect every type of buyer imaginable, beginning with those represented by the hundreds of specialized magazines and boutiques, i.e. brands, with which shoppers might identify.⁴⁰⁴ By incorporating demographic and lifestyle data, SAs can help consumers identify the best default profiles.⁴⁰⁵

Furthermore, while both editors and retailers generally, at least implicitly, use profiles of their target audience to produce only a single version of their presentation, a database medium permits SAs to offer customers the opportunity to customize a version of that profile before applying it to the data set. That is, consumers could tinker with the default formula and modify it to reflect their own idiosyncratic tastes. Many online publishers already permit viewers to design profiles to personalize displays on their web pages. Databases could permit a woman shopping for evening wear to customize her standard Bloomingdales profile to favor particular fabrics or a specific fashion

402. See generally <http://www.plansmartchoice.com/>; Stephen Barr, *Federal Diary: A Barrel of Plum Jobs for One Side or the Other*, WASH. POST, Nov. 9, 2000, at B2.

403. For example, personallogic.com uses its own proprietary “scoring” systems for different profiles. See also Frictionless Commerce, Frictionless Search, at http://www.frictionless.com/solutions/emarket_product_overview.html. See generally Beales, *supra* note 181, at 522–27.

404. These profiles could combine demographic data, interests, and even shoppers’ moods. See *supra* notes 219–20.

405. For example, customer profiles for purchasing airline tickets could presume that an artist would want a window seat on the scenic side of the plane, a parent with an infant would want an aisle seat near the bathroom, and a busy executive would prefer a seat in the front, facilitating a rapid exit.

editor's tastes. Similarly, a student could modify the profile used by a college guide to give different weights to specific academic departments or sports programs. Consumers could give positive or negative weight to any features that SAs labeled in their databases, including particular expert credentials.⁴⁰⁶ Since a manufacturer's brand generally represents a specific set of features and qualities,⁴⁰⁷ consumers could also be offered a chance to select variations on or combinations of the brands they liked. Finally, SAs could offer shoppers a third option — the opportunity to select a profile implicitly by using CF to generate recommendations, as discussed above.⁴⁰⁸

2. Reviewing and Evaluating Preferences and Conditions

Clever marketing practices⁴⁰⁹ that lead consumers to employ misleading theories⁴¹⁰ may cause buyers to adopt preferences that are inconsistent with their long-term goals or conditions.⁴¹¹ Consumers may

406. See *supra* Section IV.B.1.c.

407. This could include aspects of any stage of branding. See *supra* note 106.

408. SAs could plug the customer's raw preference data into a CF database — assuming that it was large enough — and identify the products that other, like-minded shoppers had valued most. See also Amanda Griscom, *The Blind Date: Who Is Your Destiny*, N.Y. TIMES, § 6 (Magazine), at 93 (noting programs in development at the MIT Media Lab that can draw inferences about a person's personality from their e-mail).

409. See Hanson & Kysar, *supra* note 95, at 724–42; Hanson & Kysar, *supra* note 144, at 1439; see also Paul Slovic, *The Construction of Preference*, 50 AM. PSYCHOL. 364 (1995).

410. According to Hanson and Kysar, consumer preferences are often based on “theories” subject to biases, including the (1) status quo bias, (2) context effects and the effects of irrelevant options, (3) elastic justification, (4) time-variant preferences, (5) reciprocity and attribution, (6) preference trumping effect of visceral factors, and (7) framing effects. See Hanson & Kysar, *supra* note 95, at 672–93. These perceptual effects also apply online. See NAOMI MANDEL & ERIC J. JOHNSON, CONSTRUCTING PREFERENCES ONLINE: CAN WEB PAGES CHANGE WHAT YOU WANT? 8 (Univ. of Penn., Wharton School working paper, Feb. 2, 1999) (“[T]his research demonstrates the powerful potential of on-line atmospherics, in sharp contrast to the media's view that the web empowers consumers.”), available at <http://ecom.gsb.columbia.edu/Papers/mandel%20and%20johnson.pdf>.

411. Such inconsistencies could result from misunderstandings due to inappropriate decision frames. See Payne et al., *supra* note 83, at 253, or influences of scale compatibility. See *id.* at 258–59. Some practices are as innocent as unconscious biases that unnecessarily limit one's options. See *id.* at 245 (citing ROBERT C. MITCHELL & RICHARD T. CARSON, USING SURVEYS TO VALUE PUBLIC GOODS: THE CONTINGENT VALUATION METHOD (1989)). For example, consumers may give disproportionate weight to friends' dramatic stories about a brand even if they are familiar with the more general and accurate statistics compiled by *Consumer Reports*. See Matthew Rabin, *Psychology and Economics*, 36 J. ECON. LIT. 11, 30 (1998). They may also favor brands that are

also confuse novelty with longer-term value,⁴¹² misestimate their needs,⁴¹³ or fail to give appropriate weight to relevant factors.⁴¹⁴

To help them avoid such unwanted consequences, shoppers may seek consultants to review and interpret their purchase histories.⁴¹⁵ SAs might offer these services themselves⁴¹⁶ or refer consumers to experts, such as those listed on sites like ExpertCentral.com and EXP.com.⁴¹⁷ These consultants could point out which of a consumer's constraints or conditions were unnecessarily eliminating potentially desirable choices⁴¹⁸ and might easily be relaxed.⁴¹⁹ Consultants might also help consumers reconcile conflicting goals or recommend training courses — for gaining the prerequisite skills needed for some options — or psychotherapy, to eliminate destructive preferences. Consultants might also be helpful to those inclined to rely on CF, but who wanted to shed undesirable preferences reflected in their past choices.⁴²⁰ Since

“dominated” in all relevant respects to another alternative.

412. Cf. Penelope Green, *Mirror, Mirror: So Right in the Store, So Tacky at Home*, N.Y. TIMES, Oct. 15, 2000, § 9, at 1.

413. See Lawrence M. Ausubel, *The Failure of Competition in the Credit Card Market*, 81 AM. ECON. REV. 50, 70–71 (1991) (observing that many consumers selecting credit cards do not consider interest rates because they do not intend to borrow, although they actually do borrow); Stern, *supra* note 103, at 205 (reporting that consumers estimating their energy needs tend to overestimate the energy used by their televisions and lights and underestimate the energy used by furnaces and water heaters).

414. See MARJORIE GARBER, SEX AND REAL ESTATE 27 (2000) (“The home buyers most likely to regret their purchase decisions are those who fall in love with a house before finding out what they need to know about it.”); JAMES B. TWITCHELL, TWENTY ADS THAT SHOOK THE WORLD 213 (2000) (“We have become accustomed not just to mistake value of object for value of the endorser, but to mistake value of the endorsement for the value of the object.”). Consumers are also notoriously bad at accurately accounting for risks. See, e.g., Denise Grady, *A Conversation with Robert Fenichel: Calculating Safety in a Risky World of Drugs*, N.Y. TIMES, Mar. 6, 2001, at F1.

415. For example, consultants might point out propensities to addiction to on-line auctions or other harmful side effects. They could also use manipulation checks. See Payne et al., *supra* note 83, at 256.

416. Some post-purchase reports from buyers of major durables have indicated that consumers find the salesperson to be the most useful source of information, outstripping *Consumer Reports*, advertising, and friends. See WILLIAM L. WILKIE & PETER R. DICKSON, CONSUMER INFORMATION SEARCH AND SHOPPING BEHAVIOR (Mgmt. Sci. Inst. Paper Series, 1985).

417. See, e.g., Lisa Guernsey, *Suddenly, Everybody's an Expert*, N.Y. TIMES, Feb. 3, 2000, at G1; Glenn McDonald, *Experts, Experts, Everywhere*, BUS. 2.0, Feb. 2000, at 207; Tedeschi, *supra* note 280.

418. For example, by setting unnecessarily high requirements for certain attributes, shoppers could inadvertently eliminate best choices that happened to score relatively low on such attributes. See Widing & Talarzyk, *supra* note 89, at 127.

419. See *id.* (citing Paul E. Green & V. Srinivasan, *Conjoint Analysis in Marketing Research: New Developments and Directions*, 54 J. MARKETING, Oct. 1990, at 3).

420. While CF does not provide customers with information about what drives their

consumers are generally reluctant to reveal data that might embarrass them,⁴²¹ these consultants would first need to earn their trust.

3. Information About Features and Trends that Might Alter Preferences

Information about trends and predictions about future developments are also likely to affect shopper preferences. Just as car buyers adjust their purchase decisions to account for the annual introduction of new car models, consumers might want to refrain from buying a type of computer system in December if a new “breakthrough” version or a significant price cut was expected in March.⁴²²

In some cases, consumers might desire further information about a particular feature.⁴²³ In response, many comparative shopping services permit consumers, with a simple click, to display detailed explanations of the feature or capability.⁴²⁴ Some offer software programs, such as Broderbund’s Cosmopolitan Fashion Makeover, to permit consumers to experiment with offerings,⁴²⁵ while other online retailers, like Lands’ End and FurnitureFind.com,⁴²⁶ offer access to live salespeople. Still

preferences, expert consultants might be able to provide such insight. See West et al., *supra* note 84, at 292–93 (describing the concept of SA as “tutor”); see also Ariely et al., *supra* note 340. This could allow consumers to employ both explicit and implicit preferences. See *supra* note 340.

421. See West et al., *supra* note 84, at 297; HAGEL & SINGER *supra* note 6, at 79–80; cf. Randi Hutter Epstein, *Major Medical Mystery: Why People Avoid Doctors*, N.Y. TIMES, Oct. 31, 2000, at F7 (“The bottom line for many people is fear: Fear of bad news, fear of an uncomfortable test, fear of discussing something intimate.”). Another example of this reluctance is illustrated by the cliché “buyers are liars” in the residential real estate industry. According to one observer: “Buyers, it seems, lie about their financial situation, about the sum they are willing to spend, about their desires, and even about their preferences and locations.” GARBER, *supra* note 414, at 7–8. SAs that earn this trust will enjoy significant switching costs. See Chircu et al., *supra* note 343.

422. Shoppers would want to be able to distinguish between likely new products and misleading “vaporware,” that is, get reliable “whether” reports: it is often more important to know whether or not new software will be released than precisely what that software will do. Cf. NORTON JUSTER, *THE PHANTOM TOLLBOOTH* 19–20 (1961). For a discussion of vaporware, see Barry L. Bayus et al., *Truth or Consequences: An Analysis of Vaporware and New Product Announcements*, 38 J. MARKETING. RES. (forthcoming 2001).

423. Research suggests that consumers may prefer reviewing product features one by one. See James R. Bettman & C. Whan Park, *Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes*, 7 J. CONSUMER RES. 234 (1980).

424. See *supra* note 391.

425. See J.D. Biersdorfer, *Trying On Clothes in a Virtual Dressing Room*, N.Y. TIMES, Oct. 14, 1999, at G10.

426. See Timothy Hanrahan, *You’ve Got Too Much Mail!*, WALL ST. J., Nov. 22, 1999, at R34; James Ryan, *Ottoman Empire*, BUS. 2.0, Oct. 1999, at 67, 69.

others have recognized the advantage of “brick-and-click” combinations with conventional stores.⁴²⁷

Shoppers can also refine their search profiles by browsing for ideas about what features to favor or avoid. Browsing can prompt them to remember forgotten or unconscious preferences or to learn about new features.⁴²⁸ For some consumers, browsing among pleasing options can be comparable to sightseeing or visiting a museum. For others, SAs and retailers can offer more entertaining forums, including customized versions of interactive games, supported by ads or user fees.⁴²⁹ Furthermore, once consumers have adopted a profile and reviewed the recommended items, they may want to alter their profiles to readjust the weights of some features. This process could go through multiple iterations.⁴³⁰

Websites, such as ConsumerSearch.com, also include more general background information and direct shoppers to reviews of a product category. Many include postings of frequently asked questions (“FAQs”)⁴³¹ or forums for querying fellow shoppers.⁴³² Trade publications may offer more expertise, but they may also be biased due to strong pressures from advertisers.⁴³³ Consumers could also consult independent entities, like *Consumer Reports* or a trusted author or government official.⁴³⁴ These sources might also offer customers candid assessments of different expert rating services, warning consumers about

427. See, e.g., Hodges, *supra* note 396.

428. See Hoch et al., *supra* note 125, at 528.

429. See *supra* note 48.

430. In fact, research indicates that this iterative process, also known as “dynamic heterogeneity,” seems to be the most important contributor to the advantages associated with information control. See Ariely, *supra* note 87, at 241. The process is similar to the iterative “information therapy” that research librarians often undertake when clients don’t really know what they want. See Bonnie A. Nardi, Information Ecologies, Keynote Address Before the Library of Congress Institute on Reference Service in a Digital Age (June 29, 1998), available at <http://lcweb.loc.gov/rr/digiref/nardi.html>; see also Nicholas J. Belkin, *Helping People Find What They Don’t Know*, COMM. ACM, Aug. 2000, at 58.

431. See HANSON, *supra* note 62, at 131.

432. Thus, one might ask fellow shoppers which shoes were most suitable for a particular work environment and career “statement” and which would send an undesirable message. See *supra* text accompanying note 263.

433. See *supra* note 280.

434. Government officials might recommend healthy preferences or discourage unhealthy preferences. In fact, the position of Surgeon General of the United States may be seen simply as a bully pulpit, from which a public official can advocate healthy life choices. See, e.g., UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES, ORAL HEALTH IN AMERICA: A REPORT OF THE SURGEON GENERAL (2000); see also Hartman, *supra* note 365, at 464; Nadel, *supra* note 246; Pam Belluck, *States Declare War on Divorce Rates, Before Any ‘I Dos’*, N.Y. TIMES, April 21, 2000, at A1 (discussing state initiatives to discourage divorce).

services with credibility problems,⁴³⁵ or recommending those likely to use a target profile most like the buyer's.

While retailers might try to offer free consultations as a marketing tactic,⁴³⁶ the increased use of shopping bots could create conflict between the cost of providing expert consultations and the need to maintain competitive prices. While technology may help cut the telecommunications expenses of such assistance,⁴³⁷ the costs of providing expertise may force retailers to unbundle and charge separately for them, as doctors and cosmetics retailers often do.⁴³⁸

C. Eliminating Stickiness Due to Ignorance

The potential for higher profits encourages firms to improve the attractiveness of their products or services⁴³⁹ so as to increase the likelihood that customers will remain with or repeatedly return to them — known as “stickiness.”⁴⁴⁰ It does not follow, however, that firms should be rewarded for the higher “switching costs” that seem likely to result from consumers' current failure to appreciate the value of their purchase history data. Rather, it is probably desirable for the government to educate consumers about the value of maintaining control over their transactional data as well as techniques for shopping online most effectively, thereby minimizing their switching costs.⁴⁴¹

435. See Declan McCullagh, *Odd Privacy Ratings Exposed*, WIRED NEWS (Apr. 12, 2000), at <http://www.wired.com/news/print/0,1294,35587,00.html> (discussing criticisms of web site privacy ratings by enonymous.com).

436. See, e.g., Andrew Park, *School's Out*, BUS.2.0, July 11, 2000, at 210 (discussing how notharvard.com gleefully straddles the line between education and commerce).

437. Technologies for processing natural languages are improving. See Alexei Oreskovic, *The Language Barrier*, INDUSTRY STANDARD, Apr. 24, 2000, at 218 (discussing natural language searching). E-mail also provides an inexpensive medium for customer communications. See Hanrahan, *supra* note 426.

438. Cosmetics salespeople in department stores often offer a consultation for a fee, but grant the customer a credit in that same amount toward the purchase of products. See also *supra* text accompanying notes 112–23; Sandra G. Boodman, *Divorcing Your Doctor*, WASH. POST, Apr. 25, 2000, at Z12.

439. Primarily by earning consumers' trust. See Chircu et al, *supra* note 343.

440. See ERIC J. JOHNSON ET AL., WHAT MAKES A WEBSITE “STICKY?” — COGNITIVE LOCK IN AND THE POWER OF PRACTICE (2000) (Columbia Bus. School working paper), available at <http://ecom.gsb.columbia.edu/My%20PDF%20Papers/power%20law%20submit.pdf>; HANSON, *supra* note 62, at 17; see also *infra* note 477.

441. Public policy should generally seek to minimize switching costs. See Paul Klemperer, *Competition When Consumers Have Switching Costs*, 62 REV. ECON. STUD. 515, 536–37 (1995). Such policies, however, should take into account the value of rewarding the first mover where it appears that there may be an insufficient level of intellectual property rights associated with innovation. Such policies should also fully consider all of the social costs of consumer switching. See Douglas A. Galbi, *Regulating*

1. Granting Consumers Control Over Their Data

As discussed above, data about past purchases is often crucial to enabling shoppers to search most effectively, particularly with respect to collaborative filtering. Nevertheless, consumers often forget some of their explicit preferences or fail to discover implicit ones. With computers and databases making it easier to track purchases passively,⁴⁴² many firms now compile such data so that they may use it with CF to anticipate consumer choices and make recommendations.⁴⁴³ In fact, firms with multiple retailing channels are beginning to synchronize their catalog, store, and website sales records,⁴⁴⁴ as well as other consumer data.⁴⁴⁵ Firms are realizing that an excellent way to create stickiness is to get customers to leave something of themselves behind.⁴⁴⁶

Yet if consumers become enamored with the effectiveness of CF and refuse to give up its full benefits, this may create a significant entry barrier for competitors, even those that might offer superior CF algorithms.⁴⁴⁷ While firms will presumably be willing to sell each customer his or her data at some price, there would seem to be little incentive for those firms to limit their requests to cost-justified prices.

Now consumers need not rely on their former CF providers to maintain that transactional data. Instead, they can use software products⁴⁴⁸ and infomediaries⁴⁴⁹ to collect it. Meanwhile, competition between these groups should ensure that such data collection services are available at cost-based prices. Yet this presumes full information, while

Prices for Shifting Between Service Providers, 13 INFO. ECON. & POL'Y (forthcoming 2001).

442. See *supra* note 334.

443. Amazon is one example. See *supra* note 331 and accompanying text.

444. See Bob Tedeschi, *Retailers Are Letting Their Right Hand Know What the Left Hand Is Up to for Better Customer Service*, N.Y. TIMES, July 24, 2000, at C9.

445. Firms find that the quality of the information improves when they integrate sales data with clickstream and demographic data. See Edith Schonberg et al., *Measuring Success*, COMM. ACM, Aug. 2000, at 53, 55; Edwin P. D. Pednault, *Representation Is Everything*, COMM. ACM, Aug. 2000, at 80, 81 (noting a general rule of thumb from data mining: "don't throw out any information that might be relevant").

446. See West et al., *supra* note 84, at 297; Seybold, *supra* note 33, at 242; see also Steve Jurvetson, *Turning Customers into a Sales Force*, BUS. 2.0, Mar. 2000, at 231.

447. See *supra* note 341.

448. It is likely that firms will offer software for individuals to maintain their own consumer data quite soon. See Gordon Bell, *A Personal Digital Store*, COMM. ACM, Jan. 2001, at 86; Dan Goodin, *Seeking a Better Web Search*, INDUSTRY STANDARD, Jan. 31, 2000, at 98 (discussing search-engine software Purple Yogi, which builds an index based on a user's browsing habits to fine-tune Internet searches); Leslie Walker, *A New Market for Middlemen*, WASH. POST, Feb. 11, 1999, at E1.

449. See HAGEL & SINGER, *supra* note 6, at xi-xii.

most consumers today are unaware of these alternative data collection mechanisms.⁴⁵⁰ More importantly, most shoppers are not yet familiar with CF, and even those who are may not fully appreciate how effectively CF can help them to avoid bad choices.⁴⁵¹ Shoppers' failure to foresee this value⁴⁵² and respond appropriately could lead current firms to gain an insurmountable early advantage over new entrants with better offerings.⁴⁵³

Nevertheless, many support a hands-off policy — permitting “first movers”⁴⁵⁴ to exploit any monopoly they enjoy over data they collect — in the belief that increasing their reward will stimulate initial innovation. On the other hand, permitting excessive advantages to accrue to the first innovator might also hinder subsequent inventiveness in this area.⁴⁵⁵ The European Union has taken the opposite position, requiring all businesses collecting transactional data about a customer to provide that data to the customer free of charge.⁴⁵⁶ Yet absent the opportunity to earn a return commensurate with the riskiness of their investments, data collection entrepreneurs might well forgo investing in technologies to improve data collection.

One possible model for resolving the issue would be to follow the approach that American law gives to patient medical records. Although the law generally gives ownership of that data to doctors,⁴⁵⁷ more than

450. See Schwartz, *supra* note 23, at 1683–84.

451. Few realize that, just as many people would no longer think of visiting friends without calling ahead to avoid wasted trips when no one is home, so too, buyers in the future may find it odd not to use CF to help them avoid choices that are likely to disappoint them. Shoppers may become as reluctant to abandon those who can offer the most effective CF as they are to leave long-time doctors unless they can take all their records with them. *But see* Kuchinskias, *supra* note 342.

452. Consumers generally seem to be myopic about the value of their purchase transactional data. Cf. A. Michael Froomkin, *The Death of Privacy?*, 52 STAN. L. REV., 1461, 1502–04 (2000).

453. This could undermine significant future competition prior to the next “Schumpeterian” technological revolution.

454. There is significant advantage to being the first entrant in a market. See generally Machlup, *supra* note 182; MICHAEL PORTER, *COMPETITIVE ADVANTAGE* 220–21, 232–33 (1980). The first mover advantage seems to be most important within an initial product category, although new entrants may compete effectively in new categories. See Thomas Prusa & James A. Schmitz, *Are New Firms an Important Source of Innovation? Evidence from the PC Software Industry*, 35 ECON. LETTERS 339 (1991).

455. Recognition of this tradeoff is presumably why the U.S. Constitution expressly authorizes Congress to grant copyrights and patents for only “limited times,” rather than unspecified durations. See LESSIG, *supra* note 24, at 133; *Eldred v. Reno*, 239 F.3d 372, 381–82 (D.C. Cir. 2001) (Sentelle, J., dissenting).

456. See European Directive, *supra* note 178, at Art. 7.

457. Of course, this assumes that such records are maintained, which may not always be the case. See Jane E. Brody, *For the Vaccine-Wary, A Lesson in History*, N.Y. TIMES,

forty states have given patients either a statutory or common law right to some type of access to their medical records,⁴⁵⁸ and many states limit the price that patients may be charged for copies of those records.⁴⁵⁹

Alternatively, to encourage the marketplace, rather than regulators, to set any prices or specific procedures, public officials might simply use speeches and other public appearances and writings to inform consumers of the value of their data and to recommend that they demand disclosure of these terms and consider alternatives for maintaining copies of their own data. The government could include such advice in public service announcements and school lessons, and public agencies might encourage trade associations to establish standards or to develop technologies to facilitate the compatibility of data formats used by different firms. Policy makers might also consider a temporary disclosure requirement to give customers a frame of reference on this issue.⁴⁶⁰ If this policy was successful, consumers would demand such disclosures before they chose a retailer, or at least before their existing retailer had collected too much data about them. Then market competition would lead retailers to offer shoppers their data at cost-based prices, such as a flat rate or one based on the time period involved or the quantity of data collected.

2. Teaching Consumers to Use New Search Tools

Historically, children learned shopping skills by observing family and friends and by studying arithmetic in school. Today, however, with the emergence of databases and the explosion in the number of product choices, the long-standing shopping skills of old are no longer sufficient in the new Internet environment.⁴⁶¹ Retailers that help consumers become familiar with navigating their websites will likely create significant switching costs beneficial to the firms, but potentially harmful to consumers.⁴⁶² Therefore, public schools and adult education centers should consider teaching students how to use these new tools most

Oct. 3, 2000 at F8 (discussing the maintenance of children's immunization records).

458. See Paul V. Stearns, *Access to and Cost of Reproduction of Patient Medical Records: A Comparison of State Laws*, 21 J. LEGAL MED. 79, 102 & n.183 (2000).

459. See *id.* at 80–98. Some states require charges for reproduction of or access to medical records to be “reasonable,” or to reflect “actual” costs, subject to maximums. See *id.* at 81 n.5. Several states specify a preset fee. See *id.* at 81 n.6. In some states, reproduction or access is free, at least for some purposes. See *id.* at 82 n.8.

460. See Beales, *supra* note 181, at 528 (discussing the value of such disclosure requirements when there is a new feature).

461. According to Peter Drucker, “the center of gravity of higher education is already shifting from the education of the young to the continuing education of adults.” Daly, *supra* note 125, at 139.

462. See JOHNSON ET AL., *supra* note 440.

effectively.⁴⁶³ Libraries might also offer consumer education programs, possibly taught by volunteers from the community.⁴⁶⁴

The FTC has already published numerous electronic consumer and business guides,⁴⁶⁵ and with the help of librarians and others — providing summaries of the best materials as well as links to them — consumers could learn to become educated, demanding, and effective shoppers. Educators could also teach consumers about the long-term benefits of embracing flexible, “open access” search tools, which work on nearly all websites.⁴⁶⁶

3. Unbundling Data Identification and Consultation

As discussed above, many traditional retailers help consumers compile search profiles free of charge in return for expected purchases. This makes sense when such assessments would be difficult to sell as separate services and where consumers are relatively captive. When there is consumer demand for assistance in compiling a search profile as a separate service, such as obtaining holographic body images to help customers shop more effectively for clothes online, one would expect the marketplace to provide it. If firms attempted to use bundling to extend market power they held in one service market segment into another, then the current prohibition against tying should be recognized as requiring unbundling⁴⁶⁷ to foster competition.⁴⁶⁸

D. Incentives for Developing Search Profile Templates

While SAs have the option of using existing trade secret laws to protect their proprietary database entries,⁴⁶⁹ that option would not be

463. See Janet Fast et al., *The Effects of Consumer Education on Consumer Search*, 23 J. CONSUMER AFF. 65 (1989); Beales, *supra* note 181, at 531. Such education could help respond to the finding that “people ignore useful information even when it is almost costless.” Stern, *supra* note 103, at 205. If shopping becomes complicated enough, it may even be desirable to include Internet shopping skills in “home economics” classes.

464. The United States Postal Service might even consider training many of its 750,000 employees to be shopping instructors as information exchange shifts more from transport to transmission.

465. See Graubert & Coleman, *supra* note 23, at 286 n.44.

466. For example, compare Ezlogin.com, which lets individuals store user names, passwords, and other personal materials for automatic use on almost all websites that seek such data, to Microsoft’s “Passport,” which works only on participating sites. See David Pescovitz, *Undercover Agents*, INDUSTRY STANDARD, Jan. 10–17, 2000, at 167.

467. See *supra* note 352 and accompanying text.

468. See Beales, *supra* note 181, at 515; Darby & Karni, *supra* note 103, at 69–70.

469. See *supra* note 298.

available to SAs that offered shoppers the opportunity to customize specially designed search profile templates; those SAs would need to reveal their templates for consumers to use them. Fortunately, it appears that existing copyright law would protect SAs who develop creative and valuable search profiles. Although the attributes they use would not be copyrightable, the pattern of values and weights they employed would presumably represent a novel variation of a search profile.⁴⁷⁰ While some entrepreneurs in this area may have already sought patent protection for such profiles, it would seem inappropriate to grant any firm a business method patent on a system that is already used implicitly by every business with a target audience in mind.⁴⁷¹ Firms with reliable reputations that designed valuable search profile templates could license them to others, but new entrants could still design their own variations and improve upon the existing templates as products and consumer tastes evolved.⁴⁷²

VI. EXAMINING INDIVIDUAL OPTIONS IN DETAIL: FREE RIDING AND RETAILER DISPLAYS

Once shoppers have used a profile to search all options and identify their most suitable choices, they are likely to want to examine those items in more detail. Furthermore, because the adoption of a profile can be so imprecise, consumers may wish to view their choices and then readjust their profiles several times before making a final decision.⁴⁷³

Yet, it is not clear what role SAs will play as providers of product displays, given the increased potential for free riding. As online

470. Thus, the Supreme Court has recognized that one could satisfy the originality required for a copyright by arranging or ordering data in a creative manner. See *Feist Pub'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 348 (1991).

471. Internet business method patents have been widely criticized for being awarded for practices that are relatively obvious, thereby discouraging new innovation. See Lawrence Lessig, *Patent Problems*, *INDUSTRY STANDARD*, Jan. 31, 2000, at 47. In March 2000, the United States Patent and Trademark Office announced its willingness to address the controversies surrounding business method patents. See Sabra Chartrand, *Federal Agency Rethinks Internet Patents*, *N.Y. TIMES*, Mar. 30, 2000, at C12. Moreover, the chief executive of Amazon, one of the major beneficiaries of Internet business practice patents, has expressed support for patent law reform. See Scott Thurm, *Amazon.com Chief Executive Urges Shorter Duration for Internet Patents*, *WALL ST. J.*, Mar. 10, 2000, at B3 (discussing proposals to reduce the duration of business method patents to 3–5 years); see also Amazon.com, *An Open Letter from Jeff Bezos on the Subject of Patents*, at <http://www.amazon.com/patents> (last visited Jan. 15, 2001).

472. That is, new entrants would face no disadvantage in establishing new categories, but incumbents would enjoy advantages in their existing categories. See Prusa & Schmitz, *supra* note 454, at 341.

473. See *supra* note 430.

consumers are beginning to discover, a click or two via a shopping bot like Deal Time, R U Sure, or any of the many listed at BotSpot.com can transport them from the best online product displays to a trusted low-cost merchant.⁴⁷⁴ Some, like dash.com, can even launch an automatic search for competitor prices whenever the user views a product on a shopping site.⁴⁷⁵ While one 1999 study found no evidence of significant free riding on the Internet,⁴⁷⁶ that was probably because it takes time for consumers to become familiar with reliable shopping bots.⁴⁷⁷ Although some online retailers have sought to block access by shopping bots,⁴⁷⁸ such efforts have not defeated the bots. Moreover, most of the deterrents that protect against free riding in the context of brick-and-mortar stores have dramatically weaker effects with respect to online shopping.⁴⁷⁹

474. See Bob Tedeschi, *Seller Beware: A New Kind of Software Tool Makes It Easier for Internet Surfers to Track Down the Lowest On-Line Prices*, N.Y. TIMES, Nov. 22, 1999, at C16; Greg Sandoval, *Bots Snarl Sites as Shoppers Seek Playstation 2*, CNET NEWS.COM, Dec. 8, 2000, at <http://news.cnet.com/news/0-1007-200-4049034.html>. For a while, Priceman.com even offered an aggregated search of seven or eight other shopping bots. Priceman, however, ceased operations when mySimon filed a lawsuit that accused Priceman of copying material from mySimon's site. See *MySimon.com Says Startup Stole Ideas*, S.F. CHRON., Sept. 17, 1999, at B1. For more recent information, See *infra* note 477.

475. See Debra Aho Williamson, *The Information Exchange Economy Gets Ugly*, INDUSTRY STANDARD, Mar. 13, 2000, at 170; Ben Hammer, *Bargain Hunting*, INDUSTRY STANDARD, Mar. 13, 2000, at 232.

476. See Erik Brynjolfsson & Michael D. Smith, *Frictionless Commerce? A Comparison of Internet and Conventional Retailers*, 46 MGMT.SCI. 563, 577-79 (2000).

477. See EVANS & WURSTER, *supra* note 11, at 107 ("Stickiness is a consequence of the undeveloped state of navigation."). A report by Forrester Research found that only 34 percent of online shoppers were aware of sites that compare prices. See Stacy Kravetz, *Nobody Pays Retail, but the Real Bargains May Fade Away*, N.Y. TIMES, Mar. 29, 2000, at H36. But this consumer unfamiliarity appears to be changing. See Porter, *supra* note 116, at 68-69; Stacy Lawrence, *Window-Shopping*, INDUSTRY STANDARD, May 22, 2000, at 100 (reporting that "despite a rocky beginning, comparison shopping has taken off"); David Pringle, *On the Battlefield*, WALL ST. J., July 17, 2000, at R49 ("Europeans are starting to use comparison-shopping services — much to the chagrin of some old-line retailers."); Erin White, *Comparison Shopping: No Comparison*, WALL ST. J., Oct. 23, 2000, at R18 ("In the past six months [DealTime.com and mySimon.com] have applied themselves to the problem of consumers' unfamiliarity with bots, and seem to [be] proving that it can be overcome."). But see Paul Wallich, *Your First \$20 Free!*, SCI. AM., Feb. 2000, at 38.

478. See Lynch & Ariely, *supra* note 11, at 84.

479. Many consumers feel guilty about free riding, especially when there are live salespeople watching or they have received substantial salesperson assistance. See Randy Cohen, *The Ethicist: Third-Party Time*, N.Y. TIMES, Oct. 22, 2000, § 6 (Magazine), at 44; Mike Mills, *Pulling the Rug Out from Retailers With "Secret" Price Information, the Web Levels the Buying Field*, WASH. POST, May 18, 1998, at F26. In fact, the Jewish Talmud's "Shopkeeper's Law" suggests that free-riding on salesperson assistance is unethical. See Mike Mills, *Buy Any Means? You Might Owe Merchants A Bit More*

Free riding on the Internet seems almost certain to increase as consumers find it easier to exchange referrals to low-cost sellers,⁴⁸⁰ particularly for the many shoppers attracted to the Internet primarily to obtain low prices.⁴⁸¹ E-mail already makes it simpler for buyers to use what has been called "word of mouse"⁴⁸² or "viral marketing."⁴⁸³ If friends send a properly formatted website address to those on their e-mail lists, recipients need only click on the address to reach the recommended website. Some consumers may spread the word for altruistic reasons,⁴⁸⁴ and retailers can encourage recommendations by using the Amway formula of rewarding customers who recruit new users.⁴⁸⁵ Communication of this information will be even easier once

Than You Bargained For, WASH. POST, Nov. 22, 1998, at C1. Other consumers are unwilling to invest the time and trouble to find a lower-priced vendor when that search might prove fruitless. The low-priced vendor might be out of stock, or the vendor might prove unreliable. In addition, some full service retailers try to pressure manufacturers not to offer their merchandise to low-cost sellers, although such retailer pressure is limited by law. See Press Release, Federal Trade Commission, FTC Upholds Charges That Toys "R" Us Induced Toy Makers to Stop Selling Desirable Toys to Warehouse Clubs (Oct. 14, 1998), available at <http://www.ftc.gov/opa/1998/9810/toysftc.htm>.

480. There would be no reason for customers to go elsewhere if the online retailers with the best displays also offered excellent prices, but that seems unlikely given the significant overhead costs of creating and maintaining extensive product descriptions online. For example, three-dimensional displays cost an estimated \$500 per item. See David Orenstein, *3D's Last Chance*, BUS. 2.0, July 11, 2000, at 100, 102; see also Jakob Nielsen, *Failure of Corporate Websites*, ALERTBOX (Oct. 18, 1998), at <http://www.useit.com/alertbox/981018.html>. Firms can find companies to build them basic websites for free, but these often include a bare minimum of features. See G. Beato, *Web-O-Matic*, BUS. 2.0, Oct. 1999, at 190; Jeffery A. Tannenbaum, *Web Sites Help Small Companies Open Internet Stores*, WALL ST. J., Apr. 25, 2000, at B2; Joelle Tessler, *Small Investment, Big Results*, WALL ST. J., Nov. 22, 1999, at R16. Although online firms can operate with many fewer employees than traditional stores, they require skilled workers who normally command substantially higher salaries. Training better salespeople is costly and many retailers, like REI, find it expensive to upgrade their websites continuously as technologies improve. See Leslie Kaufman, *Selling Backpacks on the Web Is Much Harder Than It Looks*, N.Y. TIMES, May 24, 1999, at C4. There is also the need to deal with customer queries. See Hanrahan, *supra* note 426.

481. See ERNST & YOUNG, *supra* note 56, at 11; Leslie Kaufman, *Bargains on Web Fade as Retailers Push for Profits*, N.Y. TIMES, June 25, 2000, at A1 (citing a May 2000 survey by Jupiter Communications finding that 73 percent of respondents rated price as the most important factor in their decision to buy a product, down from 80 percent two years ago.); *What You Said*, BUS. 2.0, Oct. 1999, at 34.

482. See Hamel & Sampler, *supra* note 6, at 90.

483. See Jurvetson, *supra* note 446; Clay Shirky, *The Toughest Virus of All*, BUS. 2.0, July 25, 2000, at 87; Joyce Slaton, *Pass It On*, INDUSTRY STANDARD, Sept. 25, 2000, at 206; *Spreading the Word*, INDUSTRY STANDARD, Sept. 25, 2000, at 208; Suzanne M. Van Spyk, *Letters: Spreading the Word*, INDUSTRY STANDARD, Oct. 30, 2000, at 32.

484. This is how mavens and connectors act. See *supra* note 279.

485. See HANSON, *supra* note 62, at 275; Lisa Guernsey, *Now, A Few Words From Friends and Sponsors*, N.Y. TIMES, Feb. 3, 2000, at G3; Jurvetson, *supra* note 446, at

voice recognition technology software⁴⁸⁶ makes Internet communication — and shopping bot use — as consumer friendly as voice telephony.

Retailers who create online product displays may respond to free riding by asking manufacturers to reimburse their costs,⁴⁸⁷ as REI already has,⁴⁸⁸ but manufacturers are likely to refuse. Instead, manufacturers will probably find it more cost effective to finance a single, high quality display of each item on their own websites,⁴⁸⁹ available to all online retailer customers via hyperlinks.⁴⁹⁰ These webpages might include 3D displays, like those already available at The Sharper Image,⁴⁹¹ other high-tech offerings,⁴⁹² or even infomercials on demand.⁴⁹³

If shoppers in traditional stores begin to use portable PCs to consult shopping bots for lower prices,⁴⁹⁴ free riding at these stores could

236; Janet Kornblum, *Get Paid for E-mailing Ads to Friends*, USA TODAY, Nov. 23, 1999, at 3B; Todd Lappin, *Get Rich . . . Quixtar!*, BUS. 2.0, Aug. 1999, at 135.

486. See *supra* note 155.

487. See Telser, *supra* note 18, at 94.

488. See Kaufman, *supra* note 480.

489. See ERNST & YOUNG, *supra* note 56, at 26–30; see also *supra* note 410, at 28.

490. See Seybold, *supra* note 224.

491. See Peter H. Lewis, *Digital Dressing Rooms and Other New Twists*, N.Y. TIMES, Sept. 22, 1999, at G4; Matthew Mirapaul, *Three-Dimensional Space Is the Next Frontier for the Internet*, N.Y. TIMES, Oct. 5, 2000, at G7; Orenstein, *supra* note 480, at 102; Michelle Slatalla, *Temptation, in Spike Heels and a Devilish Price Tag*, N.Y. TIMES, Sept. 7, 2000, at G4. Also, WebGlide has developed a system for transmitting 3-D images over relatively slow telephone-based Internet. See Don Clark, *RealNetworks to Use Technology by WebGlide to Send 3-D Images*, WALL ST. J., Dec. 9, 1999, at B10.

492. See Rick Lyman, *Bracing for Animation's Big Leap*, N.Y. TIMES, Aug. 1, 2000, at E1; Jesse Oxfeld, *See. Touch. Taste. Click. Buy.*, GROK, Dec. 2000–Jan. 2001, at 57; Michelle Slatalla, *Voyeur-Cams Come to Home Furnishings*, N.Y. TIMES, July 6, 2000, at G1; Bob Tedeschi, *Web Merchants Are Incorporating Audio and Video Features on Their Sites to Keep Buyers' Attention*, N.Y. TIMES, Mar. 13, 2000, at C12. To accommodate customers with slow modems, some websites also offer display options designed for slower Internet connections. See David Orenstein, *Hold the Bells and Whistles*, BUS. 2.0, Nov. 28, 2000, at 90; Carol Pickering, *Tight Fit*, BUS. 2.0, Apr. 2000, at 107, 109 (reporting that in response to customer complaints, one website introduced a new “simple mode” way to view the site, which “is designed for the millions of people with 28K modems”).

493. Manufacturers could also offer samples. See Richard Bruce, *Dip Into a Book, Physically and Virtually*, N.Y. TIMES, Aug. 1, 2000, at A20. Small-scale sellers, like artists, might share storage space on an industry-wide site. See Laura Rich, *Reach for the Stars*, INDUSTRY STANDARD, Apr. 10, 2000, at 99 (discussing websites that offer online storage space for performers' portfolios, such as recording tracks, videotapes, and head shots).

494. See Lisa Guernsey, *Bar Code Software For Comparing Prices*, N.Y. TIMES, July 13, 2000, at G3 (reporting that BarPoint.com allows people to make immediate online price comparisons by scanning a product on the shelf); Leslie Kaufman, *Speaking in Bar*

increase substantially. This could lead manufacturers to agree to compensate traditional retailers for their physical displays,⁴⁹⁵ then publicize retailer addresses to online customers who want to make physical inspections.⁴⁹⁶ Manufacturers could even pay for traveling displays, in which they bring products to potential customers' homes for inspection.

VII. CONCLUSION

Comparison shoppers, like all decisionmakers, seek two types of information: a short list of their best options and detailed information about those choices. The Internet now gives them direct access to most of the detailed descriptions they need to make purchasing decisions, but many consumers still seek assistance selecting the most suitable products. Selection assistants now have the technical capabilities to provide consumers with near-optimal service by (1) compiling comprehensive, searchable databases with all of the attributes by which shoppers may want to search; and (2) helping buyers effectively search these databases using carefully crafted search profiles. These services have the potential to improve the efficiency of consumer product markets, benefitting consumers and the most valuable producers alike. Policymakers should try to maximize the benefits of market competition in this area by eliminating obstacles to competition not likely to be overcome by other means.

Code: Personal Scanners Link Products Directly to Consumers, N.Y. TIMES, Oct. 6, 2000, at C1.

495. Instead of using retail price maintenance agreements to protect full service retailers, manufacturers could simply charge all retailers a set price and rebate funds to those retailers who agreed to provide superior product displays and demonstrations. See Telser, *supra* note 18, at 94.

496. See Miguel Helft, *Answer: Location, Location, Location*, INDUSTRY STANDARD, Mar. 27, 2000, at 102 (discussing Levi's website); Hodges, *supra* note 396.