

**IN DEFENSE OF DATA:
INFORMATION AND THE COSTS OF PRIVACY**

May 2009

Thomas M. Lenard and Paul H. Rubin

IN DEFENSE OF DATA: INFORMATION AND THE COSTS OF PRIVACY

By Thomas M. Lenard and Paul H. Rubin*

EXECUTIVE SUMMARY

The commercial use of information on the Internet has produced substantial benefits for consumers.¹ But, as the use of information online has increased, so have concerns about privacy. This paper discusses how the use of individuals' information for commercial purposes affects consumers, and the implications of restricting information availability in the interest of privacy. We make the following points:

Targeted advertising gives consumers useful information. The online advertising industry uses customer information to target advertising messages to consumers' specific interests. Such targeting reduces the cost to producers of communicating with consumers and the cost to consumers of obtaining useful information. Internet advertising often introduces consumers to products they were unaware of and therefore unable to seek out on their own. If information about consumers becomes less available and more expensive, sellers rely more on sending messages to poorly targeted sets of consumers. As this occurs, consumers receive more irrelevant messages and find it more difficult to obtain useful information.

Advertising revenues support new services on the Internet. New business models based on advertising revenue support new services, often provided to consumers free of charge. The most prominent example is the search engine, which would likely not be available (or would not work as well) were it not for the ability of Google, Microsoft, Yahoo! and others to develop new sources of revenue based on targeted advertising. These companies use individuals' data to target advertising; improve their algorithms; protect against a variety of threats, such as search spam, click-fraud, and malware and phishing; and develop innovative new services. For example, Google has unveiled a new flu-tracking service that shows flu activity around the country based on searches for flu-related words, and can be useful to public health officials and perhaps consumers.

Information can be "reused," increasing its value. A key property of information is that once produced, it can be used multiple times at low cost. This "public good" characteristic of information is a major reason for its productivity. Some argue that information should be used only for the purpose for which it was collected, as called for in the European Directive on the

* Thomas M. Lenard is president and senior fellow at the Technology Policy Institute. Paul H. Rubin is senior fellow at TPI and Dobbs Professor of Economics and Law at Emory University. The authors thank Arlene Holen and Scott Wallsten for helpful comments, and James Riso for very able research assistance.

¹ This study does not address categories of sensitive information, such as health information, personal financial information, or information about children. These types of information present separate issues and are subject to specific regulatory programs tailored for them (e.g., the Health Insurance Portability and Accountability Act of 1996 and the American Recovery and Reinvestment Act of 2009 for health information, The Gramm-Leach-Bliley Act of 1999 for financial records, and the Children's Online Privacy Protection Act of 1998 for children's information). We also do not cover government collection and use of information, which involves a different set of issues.

Protection of Personal Data. Such a restriction on information use would preclude many productive uses, and actually lead to reduced security for consumers.

Information is used anonymously. The major categories of online advertising that rely on user behavior—search advertising, display ads, and email advertising—use that information anonymously. The process of targeting messages based on an understanding of users’ interests, derived from information collected about their activities on the Internet, is entirely automated. Advertisers are not interested in individuals, but rather in blocks of people who are good targets for a specific product. This focus on aggregates shows up in pricing—ad prices are usually quoted in CPM: cost per thousand ad views or click-throughs.

Online information may facilitate differential pricing. Online information may make it easier for sellers to charge different prices to different consumers based on their willingness to pay. While the welfare effects of such differential pricing are ambiguous, it can improve welfare by making possible the production of goods that otherwise would not be produced. Information goods are prominent examples, because of their high-fixed, low-marginal cost structure.

Responsiveness to privacy concerns. The competitive online market structure suggests that firms do have incentives to satisfy their customers’ privacy preferences and that consumers’ behavior in the market reflects their preferences. Numerous privacy tools on the market enable individualization of privacy settings. Recent episodes involving AOL and Facebook, who were punished for violating privacy expectations of their customers, illustrate the costs to firms of deviating from acceptable practices.

Restricting legitimate information use is not likely to reduce identity theft. While people may be comfortable with intended uses of their data (by search engines, for example), they are worried about unintended uses, such as identity theft. Identity theft is perhaps the major specific harm alleged to result from the use of online information. However, restricting the use of information by legitimate firms is not likely to address the identity theft problem. One reason is that the Internet is involved in only 11 percent of identity theft cases, according to the most recent data. Moving transactions online reduces the risk of identity fraud. Moreover, use of information can reduce identity theft by making it easier for legitimate sellers to verify the identity of consumers.

Privacy advocates suggest privacy is a “free lunch.” Privacy advocates argue that online practices violate individuals’ rights and therefore should be curtailed. Innovations, such as the development of search engines or, more recently, the possibility that Internet Service Providers might use deep packet inspection as an online-advertising tool, have led to increased apprehension. However, more privacy implies less information available for producing benefits for consumers. Privacy advocates have provided little detail on the benefits of more privacy and have typically ignored the costs or tradeoffs associated with increasing privacy (i.e., reducing information). Their analysis suggests they believe that privacy is a “free lunch” consumers can obtain more of without giving up anything else.

Reducing online information use would be costly to consumers. Policy proposals that reduce the availability of information, such as an opt-in requirement or a Do Not Track list would be

costly to consumers because they would receive fewer of the benefits that online information provides. The purpose of obtaining information about consumers is to provide them with targeted advertising and services, such as free search and email, for which consumers indicate they would willingly trade their information. Under an opt-in system much of this consumer value would be lost because opt-in rates would likely be quite low. Also, by increasing unwanted ads, a Do Not Track List would have the opposite effect of the popular Do Not Call List. A Do Not Track List would increase the volume of unwanted marketing messages.

In sum, good public policy requires that the benefits of more information be balanced against the benefits of greater privacy. Regulation should be undertaken only if a market is not functioning properly and if the benefits of new measures outweigh their costs. Our analysis suggests that proposals to restrict the amount of information available would not yield net benefits for consumers.