



# Federal Trade Commission

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## **Forces Driving and Impeding Innovation**

**Remarks of J. Thomas Rosch\***  
**Commissioner, Federal Trade Commission**

**before the**

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We are currently seeing technology advance on a scale that is unparalleled in my lifetime (and I'm 70 years old). I'd like to spend a few minutes discussing some of the major forces accounting for this phenomenon and some of the threats to its continuance.

Time does not permit discussion of all of the forces that are contributing to the technological advances that we are seeing or to things that threaten its continuance. But let me mention what I think are the principal ones.

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\* The views stated here are my own and do not necessarily reflect the views of the Commission or other Commissioners. I am grateful to my attorney advisors, Beth Delaney and Darren Tucker, for their invaluable assistance preparing this paper.

*First*, market participants are increasingly worldwide in their scope. There are exceptions, to be sure. Vehicles still drive on the left in the U.K. and Japan, and vehicles that are sold in those countries therefore have steering wheels and columns on their right hand side. But in the main, the products that are sold in the United States are the same as those that are sold in the European Union and Asia. That goes for toys, consumer electronics products from software to iPods and a whole range of commodities. And the products that are being sold in the United States are not necessarily the result of marketing efforts located there. Telemarketing that used to be done in South Dakota is now done in India or elsewhere in the world.<sup>1</sup>

What are the principal threats to this driving force? Essentially, they can be boiled down to one word: protectionism. That can, of course, take many forms. A tariff is the principal one. But extraordinary taxes and supports for “national champions” are others. And those supports can take the form not only of economic subsidies but also of a “hands off” policy when it comes to law enforcement. If, for example, authorities do nothing to curb abusive telemarketing calls made to recipients in other countries, such inaction can have an adverse impact on international commerce that is conducted in via telemarketing.<sup>2</sup>

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<sup>1</sup> See *Dialing for Dollars*, Online NewsHour, Nov. 5, 2002, transcript available at [www.pbs.org/newshour/bb/asia/july-dec02/telemarketing\\_11-05.html](http://www.pbs.org/newshour/bb/asia/july-dec02/telemarketing_11-05.html); Anthony Mitchell, *The Call Center Compliance Mess*, E-Commerce Times, Oct. 14, 2004, available at [www.ecommercetimes.com/story/37330.html](http://www.ecommercetimes.com/story/37330.html).

<sup>2</sup> See, e.g., *FTC v. 3R Bancorp, et al.*, Civil Action No. 04 C 7177 (N.D. Ill., filed May 17, 2006) (call centers located in Canada and India falsely promised consumers a “guaranteed” low interest credit card for an advance fee); *FTC v. FGH International Corp.*, Civil Action No. CV04-8103-AHM (JWJx) (C.D. Cal., filed Sept. 27, 2004) (corporate defendant and telemarketing boiler room based in Peru); *FTC v. 4086465 Canada, Inc.*, Civil Action No 1:04CV1351 (N.D. Ohio, filed July 19, 2004) (defendants based in Canada engaged in deceptive telemarketing of bogus “consumer protection service” that promised to protect consumers against telemarketing and unauthorized bank activity).

Additionally, protectionism can take the form of discriminatory treatment of foreign firms. Professor Lars-Hendrick Roeller did an informal, unpublished study, for example, of European Commission (“EC”) challenges to European and U.S. transactions and practices after the EC huge fines levied against Microsoft and Intel. He found that although the EC had challenged transactions and practices involving U.S. firms on far fewer occasions, the fines against U.S. firms dwarfed those levied against European firms in the past five years. Concerns have been expressed that China may enforce its competition laws in a discriminatory fashion.

*Second*, education has improved worldwide. This is masked somewhat by what we read in the newspaper about test scores. But our newspapers tend to report only the test scores achieved by local schools, or schools in the United States. The upward trend in those test scores is relatively modest. But they are relatively modest for a reason: the test scores in some other countries – like China, for example – are increasing at a faster rate.<sup>3</sup> That tends to obscure the fact that opportunities and achievements in education have improved globally during the past decades.

The principal threats to educational progress cannot be summed up so succinctly. One factor is the reluctance of society to invest in education because the pay-offs are not easy to discern, at least until one looks at what is happening globally. Another factor is the entrenchment of the public educational establishment: teachers’ unions purporting to represent teachers often (though not always) focus solely on salaries, pension, and tenure. Thus, they frequently (though again not always) tend to resist changes and experimentation that may improve the lot of students (and their parents).

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<sup>3</sup> Jessica Shepherd, *China’s Top Universities Will Rival Oxbridge, Says Yale President*, The Guardian, Feb. 2, 2010, available at <http://www.guardian.co.uk/education/2010/feb/02/chinese-universities-will-rival-oxbridge>.

*Third*, innovation has increased at an ever-quickening pace worldwide. The explanations for this phenomenon are many and varied. One is that firms are exploiting their “first mover” advantages more skillfully. That is to say, they are “locking-in” the scale that being the first to invest (or at least to market) a new product or service gives them. Another explanation, which is a favorite of economists, is that many markets today are “multi-sided”: that is to say, the more consumers there are, the more developers of new product features (or application developers) there will be and vice-versa. (We saw this in the Microsoft case with respect to the development and sale of software.) A third explanation is that trade secrets are getting more protection both by legislation and by the firms seeking to protect their inventions by keeping them secret.

What about the flipside of trade secret protection: patentability (patents are publicly disclosed but the invention is protected after disclosure)? A few years ago, the ABA Section of Antitrust Law reviewed the empirical studies and concluded that patents are an important inducement to innovation in only a few industries and that expanding the rights provided by an existing patent system does not increase overall inventive activity.<sup>4</sup> The ABA report found that patents helped stimulate R&D in the pharmaceutical industry but not in some high-tech industries where “the advantages that come with a head start, including setting up production, sales, and service structures and moving down the learning curve, were judged much more effective than patents as an inducement to R&D.”<sup>5</sup>

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<sup>4</sup> ABA Section of Antitrust Law, *The Economics of Innovation: A Survey* § II.E. (2002).

<sup>5</sup> *Id.* Several other surveys of the empirical data have also concluded that there is little or no link between the degree of patent protection and innovation in many industries. *See, e.g.*, Fed. Trade Comm’n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* Ch. 2(II)(A)(2), at 11 (2003) (“Empirical study has shown that in some industries, firms often innovate to exploit first-mover advantages, learning-curve advantages, and other advantages, not to gain patent protection.”); *see also id.* ch. 2(I)(A)(1), at 5 (“[A] number of studies have shown that [other] measures typically are more important

But one should be careful not to conclude from these studies that patents offer no benefit in high technology industries. That is because patents can have benefits beyond merely stimulating and disseminating new technology. Patents can also help to commercialize inventions. Specifically, patent rights can facilitate relationships between inventors and entities with established marketing and development capabilities. Patents can make information a tradable commodity through the use of licenses. Absent patent protection, inventors might be less willing to discuss their inventions with other firms for fear of misappropriation.<sup>6</sup>

The ability to transfer inventions to other firms allows startup companies to focus exclusively on technology development and to avoid the added complexity of vertical integration. We often see in the biotech sector, for example, large, established companies acquiring promising startups once their new drug or device reaches later-stage clinical trials, which can be expensive and time consuming. To put it simply, patents facilitate specialization in invention itself.

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than patents for protecting appropriability in many industries.”); Wesley M. Cohen, Richard R. Nelson & John P. Walsh, *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)* 2 (Nat’l Bureau of Econ. Research Working Paper No. 7552, 2000) (stating that prior studies “suggest that patent protection is important in only a few industries, most notably pharmaceuticals”); Adam B. Jaffe, *The U.S. Patent System in Transition: Policy Innovation and the Innovation Process*, 29 *Research Policy* 531, 540, 554 (2000) (noting that there is “little empirical evidence” that strengthening patent protection in the 1980s increased innovation and that several studies suggest “that patents are not central to appropriating the returns to R&D in most industries”); Michele Boldrin & David K. Levine, *Does Intellectual Monopoly Help Innovation?* 13 (Working Paper 2009) (“We have identified twenty three economic studies that have examined the issue empirically. The executive summary: they find weak or no evidence that strengthening patent regimes increases innovation; they find strong evidence that strengthening the patent regime increases patenting!”).

<sup>6</sup> FTC Innovation Report, *supra* note 5, Ch. 2(I)(A)(2), at 5-6 (“Without patent rights, inventors might have to rely on secrecy to prevent free-riding on their innovation; by shielding inventors from such free-riding, patents allow them to discuss their work with other firms that can help commercialize the invention.”); *see also* ABA Survey, *supra* note 4, at 12-13 (“[P]atents can facilitate exclusive licensing to entities who would invest in necessary development work. They can also induce initial inventors to become entrepreneurs.”).

A related benefit of patent protection is the attraction of venture capital. Patentability helps give promising startup companies access to capital markets and permits them to sustain expensive R&D efforts. A 2003 FTC report suggested that the ability to attract venture capital was particularly important for biotech firms and computer hardware design firms.<sup>7</sup> The FTC will explore in more detail the importance of patents to venture capitalists in an upcoming report.

The principal threats to innovation, I would suggest, are those posed by firms that illegally create or maintain monopoly power attained from innovation. They may create monopoly power illegally, for example, by acquiring a true innovator so that they do not have to compete with that firm in order to invent new products or services.<sup>8</sup> Moreover, an innovative firm can illegally maintain its monopoly power if it engages in practices that cripple or eliminate rivals that might constrain an exercise of monopoly power.<sup>9</sup>

These driving forces are reflected in the fact that business is increasingly conducted via the Internet. To begin with, the amount of retail sales that are made over the Internet instead of through brick-and-mortar stores is increasing exponentially. One need only look at the year over year sales figures reported during the Christmas season to see that.<sup>10</sup> Amazon.com, which expanded years ago beyond its original focus on books

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<sup>7</sup> FTC Innovation Report, *supra* note 5, Ch. 3(III)(D)(1)(a), at 18 (“Biotechnology companies overwhelmingly underscored the importance of patents for attracting venture capital.”); *id.* Ch. 3(I), at 2 (“By contrast, computer hardware firms that specialize solely in hardware design and have no manufacturing responsibilities valued patent protection as a way to raise venture capital.”); *id.* Ch. 3(IV)(E)(1), at 34 (“Specialized design firms . . . seek ‘very strong, solid patent protection’ for two reasons: to raise venture and to stake out proprietary positions . . .”).

<sup>8</sup> See Statement of the Commission, *In re Pfizer Inc.*, FTC File No. 091 0053 (Oct. 14, 2009), available at <http://www.ftc.gov/os/caselist/0910053/091014pwyethstmt.pdf>.

<sup>9</sup> J. Thomas Rosch, Promoting Innovation: Just How “Dynamic” Should Antitrust Law Be?, Remarks before the USC Gould School of Law 2010 Intellectual Property Institute (Mar. 23, 2010), available at <http://www.ftc.gov/speeches/rosch/100323uscremarks.pdf>.

<sup>10</sup> Press Release, *comScore Reports \$29.1 Billion in U.S. Retail E-Commerce Spending for Full November-December Holiday Season, Up 4 Percent vs. Year Ago*, Jan. 6, 2010 (“For the full holiday online shopping season, \$29.1 billion was spent online, marking a 4-percent increase versus the same period last

and music, now carries more items than a bricks-and-mortar department store could ever hope to.<sup>11</sup>

What are the principal threats to the technological advances that are reflected in the use of the Internet? I would suggest that they are threefold. *First*, there are practices that have the potential to – or that actually do – disable computers. I am talking about spyware and various forms of software that can invade and corrupt computers and thereby impair the computer user’s experience.<sup>12</sup> Other practices that disincentivize consumers’ Internet use altogether include things such as identity theft and other abuses that can occur when Internet transmissions are high-jacked or computer systems are hacked.<sup>13</sup> This also would include instances where unreasonable and inappropriate security practices result in flaws and vulnerabilities in data security systems.<sup>14</sup>

*Second* – and this pertains specifically to efforts by firms to transmit employee and customer information to their various offices located in other countries – disparate

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year. The season featured distinct periods of strong spending growth surrounding the Thanksgiving-Black Friday timeframe and the final shopping week leading up to Christmas.”).

<sup>11</sup> Press Release, *Amazon.com Announces First Quarter Sales up 46% to \$7.13 Billion*, Apr. 22, 2010 (“Net sales increased 46% to \$7.13 billion in the first quarter [of 2010], compared with \$4.89 billion in first quarter 2009.”).

<sup>12</sup> *FTC v. Seismic Entertainment Prods. Inc.*, Civ. No. 1:04-CV-00377-JD (D.N.H. Oct. 6, 2004) (complaint); *FTC v. Odysseus Marketing, Inc.*, Civ. No. 1:05-cv-00330-SM (D.N.H. Sept. 21, 2005) (complaint); *In re Zango, Inc. et al.*, FTC File No. 052 3130 (issued Nov. 2, 2006) (consent order); *In re Direct Revenue, LLC et al.*, FTC File No. 052 3131 (issued Feb. 20, 2007) (consent order).

<sup>13</sup> One survey, for example, found that, as a result of fears about protecting their identities, 30 percent of consumers polled were limiting their online purchases, and 24 percent were cutting back on their online banking. See Jennifer Cummings, *Substantial Numbers of U.S. Adults Taking Steps to Prevent Identity Theft*, Wall St. J. Online, May 18, 2006, available at [www.harrisinteractive.com/news/newsletters/WSJfinance/HI\\_WSJ\\_PersFinPoll\\_2006\\_vol2\\_iss05.pdf](http://www.harrisinteractive.com/news/newsletters/WSJfinance/HI_WSJ_PersFinPoll_2006_vol2_iss05.pdf).

<sup>14</sup> In a number of cases, the Commission has alleged that security inadequacies led to breaches that caused substantial consumer injury and were challenged as unfair practices under the FTC Act. See, e.g., *In re CardSystems Solutions, Inc.*, FTC Docket No. C-4168 (Sep. 5, 2006); *In re DSW, Inc.*, FTC Docket No. C-4157 (Mar. 7, 2006); *In re BJ’s Wholesale Club, Inc.*, FTC Docket No. C-4148 (Sep. 20, 2005).

national standards and rules governing whether and how such data transmissions can lawfully occur may threaten e-commerce and convergence.<sup>15</sup>

The *third* – and possibly most important – issue to consider with respect to e-commerce is the framework chosen to protect consumers’ privacy online. There is a concern that consumers won’t avail themselves of benefits offered by the online world if they believe their personal information is being used in ways that they don’t expect, or that make them uncomfortable.

Today you have heard a lot about privacy and the online marketplace from people who are really on the front lines of thinking about these issues. I can’t profess to be as steeped in this area as they are, but I would like to add to the discussion by providing thoughts on what I think are some of the potentially tricky areas when it comes to talking about regulation or even self-regulation in this area.

One dichotomy that strikes me is the fact that often consumers “say” one thing, yet “do” another.<sup>16</sup> We see this all the time with survey and polling results. Some polls indicate that most consumers are concerned about privacy.<sup>17</sup> But other surveys show that consumers rarely will read a privacy policy.<sup>18</sup>

Possibly consumers don’t understand privacy policies as they are currently written, so they don’t even bother to try and read them. Or, perhaps consumers are in too

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<sup>15</sup> See Miriam Wugmeister, Karin Retzer & Cynthia Rich, *Global Solutions for Cross-Border Data Transfers: Making the Case for Corporate Privacy Rules*, 38 Geo. J. Int’l L. 449, 469-77 (2007).

<sup>16</sup> See generally Michael Bush, *My Life, Seen Through the Eyes of Marketers*, Advertising Age, Apr. 26, 2010, at 6.

<sup>17</sup> See, e.g., Christopher Weaver, *Does Your Ad Network Know You’re Gay?*, Advertising Age, Apr. 19, 2010, at C-5; *Online Worries Remain High, ACI Survey Shows*, Mar. 19, 2009, available at <http://www.theamericanconsumer.org/2009/03/19/online-worries-remain-high-aci-survey-shows-consumers-most-concerned-about-identity-theft-viruses-privacy-and-spyware/>; *NZers Concern About Privacy High*, New Zealand Press Association, Aug. 25, 2008.

<sup>18</sup> *Regulators Demand Clearer Privacy Policies*, Out-law.com, Feb. 16, 2009, available at <http://www.out-law.com//default.aspx?page=9795> (reporting that 71% of people polled by the UK’s Information Commissioner’s Office did not read or understand privacy policies).



much of a hurry to make a transaction and they don't have time to read a privacy policy. I'll be the first to admit that they don't make the most appetizing reading.

Alternatively, perhaps consumers don't engage in more due diligence because maybe they have an expectation that their information is not being shared beyond the initial transaction. For example, while they might expect that the website that they are visiting can see what they are doing on that website, they may not understand how an advertising network operates. Or consumers may expect that an online retailer will examine their purchase history to market additional products to them, but not necessarily expect that that information will be shared with unrelated parties to the transaction. As a result, it's possible that only when such collection and sharing practices are at the forefront of the news cycle do consumers really become aware of, and then concerned about, those practices.

Similarly, consumers seem to "say" one thing, but "do" another when it comes to opting in or opting out. As I noted earlier, consumers generally "say" they're concerned about privacy. But surveys indicate that while only 10 to 15% of consumers will "opt in" to information collection and sharing, virtually no consumers exercise their ability to "opt out."<sup>19</sup> Consumers are voluntarily sharing vast amounts of personal data on social networking sites, like Facebook, My Space and Linked In, and through other electronic avenues, such as Twitter. It seems to me there is a willingness on the part of many consumers to divulge information without first making sure they fully understand how that information is being used and whether it is being shared or publicly disclosed. Yet, at the same time, intense public interest is generated when a company like Yahoo!,

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<sup>19</sup> Thomas M. Lenhard & Paul H. Rubin, *Privacy and the Commercial Use of Personal Information: The Case of Customer Proprietary Network Information*, Progress on Point, Aug. 2007, at 6, available at <http://www.pff.org/issues-pubs/pops/pop14.15lenardrubinCPNIprivacy.pdf>.

Google or Facebook changes or elaborates upon its privacy practices. It's not easy to understand exactly what is going on here.

Consumer attitudes about online behavioral tracking and advertising are just as inconsistent.<sup>20</sup> Some surveys indicate that consumers consider online behavioral tracking an invasion of privacy.<sup>21</sup> Other surveys claim that many consumers don't care.<sup>22</sup> One viewpoint is that Internet users appreciate behavioral tracking because it can facilitate their shopping, or streamline their Internet experience.<sup>23</sup> Others justify online behavioral tracking and advertising because Internet users benefit indirectly from targeted advertising through its financing of free content (in much the same way that network television advertising helps finance free network television content).

Another dichotomy that I find interesting is the apparent disconnect that some consumers have about online profiling and offline profiling. I don't know where I come out on this, but it strikes me as odd that consumers apparently have not been as concerned about the "offline" profiling of their activities that has been going on for years – involving data mined from magazine subscriptions, zip codes, real estate transactions, catalogue purchases, warranty cards, and other information. Perhaps it is because consumers recognize that the electronic compilation, sifting and analysis of data allows for a more powerful and comprehensive database of their activities.

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<sup>20</sup> The FTC has defined "online behavioral advertising" as the tracking of a consumer's online activities – including the searches the consumer has conducted, the web pages visited, and the content viewed – in order to deliver advertising tailored to the consumer's interests. See FTC Staff Report, *Self-Regulatory Principles for Online Behavioral Advertising*, Feb. 2009, available at [www.ftc.gov/os/2009/02/P085400behavadreport.pdf](http://www.ftc.gov/os/2009/02/P085400behavadreport.pdf).

<sup>21</sup> See, e.g., Turow et al., *Americans Reject Tailored Advertising* at 3, Sept. 2009, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1478214](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1478214) (even when told that the act of following them will take place anonymously, 68% of Americans surveyed "definitely" would not allow it, and 19% would "probably" not allow it).

<sup>22</sup> Jayne O'Donnell, *Are Retailers Going Too Far Tracking Our Web Habits?*, USA Today, Oct. 26, 2009, available at [http://www.usatoday.com/tech/news/2009-10-25-retailers-tracking-web-behavior\\_N.htm](http://www.usatoday.com/tech/news/2009-10-25-retailers-tracking-web-behavior_N.htm).

<sup>23</sup> But see Turow, *supra* note 21, at 3 ("most adult Americans (66%) do not want marketers to tailor advertisements to their interests").

The two issues that I find critical in the online behavioral advertising debate are “notice” and “consent.” In the privacy arena, the notice prong has historically been satisfied by providing information in a privacy policy. I see a couple problems with this. First, all indicators seem to point to the fact that such notices – as they are currently presented to consumers – are rarely read. They can be incomprehensible, difficult to find, and full of information that sets forth protections for the policy writer, rather than the consumer. Second, even if the policy is found, read and understood, does the consumer really have any choice? I would speculate that there isn’t much incentive to read a privacy policy if you are merely going to have to abide by the terms of it, no matter how overreaching they are. Certainly consumers can walk away from the transaction or the use of the service, but in most circumstances they probably will do that only if there is an available substitute. Are companies competing on the basis of their privacy practices? I doubt it – if they were, instead of burying their practices in mouse print type, they would be blazoning them on the home page of their websites. So, if companies aren’t, why not? Does it go back to the initial question of what really matters to consumers? Or is it that consumers have no alternatives?

The “consent” prong has been pushed to the forefront with the evolution of the collection of information about consumers’ activities online. Much of the recent discussion focuses on an “opt-in” model versus an “opt-out” model. In my mind, I am more concerned about instances where the online tracking involves the collection of information like a social security number, or a driver’s license number, financial information, or other, very personal or sensitive information (such as race or ethnicity, religious beliefs, or sexual preference) that is linked to a specific individual. I would

therefore generally consider an “opt-in” policy appropriate for that kind of information. However, I view the collection of more general, nonsensitive information, such as preferences or surfing behavior that is linked to a specific individual, to be benign, even if a particular consumer might find such practices disturbing or invasive. I would therefore generally consider an “opt-out” policy appropriate for that kind of information.

Let me express some concerns I have about how a privacy framework should be structured. First, I have a reservation about making the information collection and use disclosures in a privacy policy. As I mentioned earlier, it seems like that would be the last place any consumer would look. I would like to see companies take the initiative in making their practices much more transparent and accessible to consumers. For example, by reminding consumers how their information is being used *contemporaneously* with the collection of the information, when practicable. On the other hand I do like the idea of requiring companies to disclose their information collection, use and sharing practices in all circumstances because I think that this can give us a much needed foot in the door. If companies are required to disclose their practices, the Commission can make sure that they are complying with those representations, and if they are not, we can and will pursue them under a deception theory.

Second, although I have no reservation about an opt-out policy where the information collected from consumers is then shared with third parties for a benign use (such as sharing search data that is then used to market athletic shoes to a particular consumer), I do have reservations about an opt-out policy when consumer information is shared with a third party that then uses that information for a purpose that the consumer would not ordinarily expect, or that would be unusually invasive. Imagine, for example,

if information about consumers' interest in dieting, or internet research on diabetes, was then used to influence how their insurance premiums were calculated.

Third, I have a reservation about an opt-out policy where there's been a material change in the company's use or sharing of the consumer information collected. What constitutes a "material change," is by no means clear to me, especially where changes have been made that are incremental over time, but, when considered as a whole, they are substantial.

Fourth, conversely, I have real reservations about the use of an opt-in policy by an incumbent seeking to use opt-in when that standard is being used to erect barriers to entry by a rival who will be disadvantaged in competing effectively because of the incumbents' opt-in policy.