



- January 31, 2013 -All disruptive technologies upset traditional power balances, and the Internet is no exception. The standard story is that it empowers the powerless, but that's only half the story. The Internet empowers everyone. Powerful institutions might be slow to make use of that new power, but since they are powerful, they can use it more effectively. Governments and corporations have woken up to the fact that not only can they use the Internet, they can control it for their interests. Unless we start deliberately debating the future we want to live in, and the role of information technology in enabling that world, we will end up with an Internet that benefits existing power structures and not society in general. We've all lived through the Internet's disruptive history. Entire industries, like travel agencies and video rental stores, disappeared. Traditional publishing -- books, newspapers, encyclopedias, music -- lost power, while Amazon and others gained. Advertising-based companies like Google and Facebook gained a lot of power. Microsoft lost power (as hard as that is to believe). The Internet changed political power as well. Some governments lost power as citizens organized online. Political movements became easier, helping to topple governments. The Obama campaign made revolutionary use of the Internet, both in 2008 and 2012.

And the Internet changed social power, as we collected hundreds of "friends" on Facebook, tweeted our way to fame, and found communities for the most obscure hobbies and interests. And some crimes became easier: impersonation fraud became identity theft, copyright violation became file sharing, and accessing censored materials -- political, sexual, cultural -- became trivially easy.

Now powerful interests are looking to deliberately steer this influence to their advantage. Some corporations are creating Internet environments that maximize their profitability: Facebook and Google, among many others. Some industries are lobbying for laws that make their particular business models more profitable: telecom carriers want to be able to discriminate between different types of Internet traffic, entertainment companies want to crack down on file sharing, advertisers want unfettered access to data about our habits and preferences.

On the government side, more countries censor the Internet -- and do so more effectively -- than ever before. Police forces around the world are using Internet data for surveillance, with less judicial oversight and sometimes in advance of any crime. Militaries are fomenting a cyberwar arms race. Internet surveillance -- both governmental and commercial -- is on the rise, not just in totalitarian states but in Western democracies as well. Both companies and governments rely more on propaganda to create false impressions of public opinion.

In 1996, cyber-libertarian John Perry Barlow issued his "Declaration of the Independence of Cyberspace." He told governments: "You have no moral right to rule us, nor do you possess any methods of enforcement that we have true reason to fear." It was a utopian ideal, and many of us believed him. We believed that the Internet generation, those quick to embrace the social changes this new technology brought, would swiftly outmaneuver the more ponderous institutions of the previous era.

Reality turned out to be much more complicated. What we forgot is that technology magnifies power in both directions. When the powerless found the Internet, suddenly they had power. But while the unorganized and nimble were the first to make use of the new technologies, eventually the powerful behemoths woke up to the potential -- and they have more power to magnify. And not only does the Internet change power balances, but the powerful can also change the Internet. Does anyone else remember how incompetent the FBI was at investigating Internet crimes in the early 1990s? Or how Internet users ran rings around China's censors and Middle Eastern secret police? Or how digital cash was going to make government currencies obsolete, and Internet organizing was going to make political parties obsolete? Now all that feels like ancient history.

It's not all one-sided. The masses can occasionally organize around a specific issue -- SOPA/PIPA, the Arab Spring, and so on -- and can block some actions by the powerful. But it doesn't last. The unorganized go back to being unorganized, and powerful interests take back the reins.

Debates over the future of the Internet are morally and politically complex. How do we balance personal privacy against what law enforcement needs to prevent copyright violations? Or child pornography? Is it acceptable to be judged by invisible computer algorithms when being served search results? When being served news articles? When being selected for additional scrutiny by airport security? Do we have a right to correct data about us? To delete it? Do we want computer systems that forget things after some number of years? These are complicated issues that require meaningful debate, international cooperation, and iterative solutions. Does anyone believe we're up to the task?

We're not, and that's the worry. Because if we're not trying to understand how to shape the Internet so that its good effects outweigh the bad, powerful interests will do all the shaping. The Internet's design isn't fixed by natural laws. Its history is a fortuitous accident: an initial lack of commercial interests, governmental benign neglect, military requirements for survivability and resilience, and the natural inclination of computer engineers to build open systems that work simply and easily. This mix of forces that created yesterday's Internet will not be trusted to create tomorrow's. Battles over the future of the Internet are going on right now: in legislatures around the world, in international organizations like the International Telecommunications Union and the World Trade Organization, and in Internet standards bodies. The Internet is what we make it, and is constantly being recreated by organizations, companies, and countries with specific interests and agendas. Either we fight for a seat at the table, or the future of the Internet becomes something that is done to us.

This essay appeared as a response to Edge's annual question, "What *Should* We Be Worried About?"

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