

Edited by Berin Szoka & Adam Marcus



# THE NEXT DIGITAL DECADE ESSAYS ON THE FUTURE OF THE INTERNET

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## Is Internet Exceptionalism Dead?

#### By Tim Wu\*

In 1831, Alexis de Tocqueville released *Democracy in America*, the founding text of "American exceptionalism." After long study in the field, America, he had concluded, was just different than other nations. In an often-quoted passage, de Tocqueville wrote:

The position of the Americans is therefore quite exceptional, and it may be believed that no democratic people will ever be placed in a similar one. Their strictly Puritanical origin—their exclusively commercial habits—even the country they inhabit, which seems to divert their minds from the pursuit of science, literature, and the arts—the proximity of Europe, which allows them to neglect these pursuits without relapsing into barbarism—a thousand special causes, of which I have only been able to point out the most important—have singularly concurred to fix the mind of the American upon purely practical objects. His passions, his wants, his education, and everything about him seem to unite in drawing the native of the United States earthward; his religion alone bids him turn, from time to time, a transient and distracted glance to heaven.<sup>1</sup>

Is there such a thing as Internet exceptionalism? If so, just what is the Internet an exception to? It may appear technical, but this is actually one of the big questions of our generation, for the Internet has shaped the United States and the world over the last twenty years in ways people still struggle to understand. From its beginnings the Internet has always been different from the networks that preceded it—the telephone, radio and television, and cable. But is it different in a lasting way?

The question is not merely academic. The greatest Internet firms can be succinctly defined as those that have best understood what makes the Internet different. Those that have failed to understand the "Network of Networks"—say, AOL, perished, while those that have, like Google and Amazon, have flourished. Hence the question of Internet exceptionalism is often a multibillion dollar question. The state of the Internet has an obvious effect on national and international culture. It is also of considerable political relevance,

<sup>\*</sup> Professor, Columbia Law School; Fellow, New America Foundation

ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 519 (Henry Reeve trans., D. Appleton and Company 1904) (1831).

both for enforcement of the laws, and the rise of candidates and social movements.

What makes the question so interesting is that the Internet is both obviously exceptional and unexceptional at the same time. It depends on *what* you might think it is an exception to. It is clear that the Internet was a dramatic revolution and an exception to the ordinary ways of designing communications systems. But whether it enjoys a special immunity to the longer and deeper forces that shape human history is, shall we say, yet to be seen.

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In the early 2000s, Jack Goldsmith and I wrote *Who Controls the Internet?*<sup>2</sup> The book is an explicitly anti-exceptionalist work. It addressed one particular way that the Internet might be an exception, namely, the susceptibility, as it were, of the Internet to regulation by the laws of nations. From the mid-1990s onward it was widely thought that the Internet would prove impossible to control or regulate. Some legal scholars, in interesting and provocative work, argued that in some ways the Network might be considered to have its own sovereignty, like a nation-state.<sup>3</sup> That was the boldest claim, but the general idea that the Internet was difficult or impossible to regulate was, at the time, a political, journalistic and academic commonplace, taken for granted. For example, reflecting his times, in 1998 President Clinton gave a speech about China's efforts to control the Internet. "Now, there's no question China has been trying to crack down on the Internet—good luck" he said. "That's sort of like trying to nail Jello to the wall."<sup>4</sup>

That was the conventional wisdom. In our book we suggested that despite the wonders of the Network it did not present an existential challenge to national legal systems, reliant, as they are, on threats of physical force.<sup>5</sup> We predicted that nations would, and to some degree already had, reassert their power over the Network, at least, for matters they cared about. They would assert their power not over the Network in an abstract sense, but the actual, physical humans and machinery who lie underneath it. Many of the book's chapters ended with people in jail; unsurprisingly, China provided the strongest example of what a State will do to try to control information within its borders.

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TIM WU & JACK GOLDSMITH, WHO CONTROLS THE INTERNET (2006).

David Post & David Johnson, Law and Borders-The Rise of Law in Cyberspace, 48 STAN. L. REV. 1367 (1996).

<sup>4</sup> R. MICHAEL ALVAREZ & THAD E. HALL, POINT, CLICK AND VOTE: THE FUTURE OF INTERNET VOTING 3 (2004).

JOHN AUSTIN, THE PROVINCE OF JURISPRUDENCE DETERMINED (Wilfrid E. Rumble, ed., Cambridge Univ. Press 1995) (1832).

Drama aside, in a deeper way, we were interested in what you might call the persistence of physicality. Despite its virtual qualities, behind the concept of a global network were living human beings, blood and flesh. The human body's susceptibility to pain and imprisonment is a large part of what the nation-state bases its rule on, and that had not changed. We predicted that the nation's threat of physical force, otherwise known as laws, would therefore shape the Network as much as its founding ambitions.

Here is how we put the point in the introduction to our book, written in about 2005 or so:

Our age is obsessed with the search for the newest "new thing." Our story, by contrast, is about old things—ancient principles of law and politics within nations, cooperation and clashes between nations, and the enduring relevance of territory, and physical coercion. It is a story where Thomas Hobbes is as important as Bill Gates. Like it or not, these old things are as important to the Net's development, if not more so, than any technological or intellectual breakthrough.

In these pages we present a strong resistance to Internet exceptionalism, or any arguments that new technologies can only be understood using novel intellectual frameworks. Like other revolutionary communication technologies, the Internet has changed the way we live, and fostering undreamt of new forms of social organization and interaction. But also like other revolutionary communication technologies, the Internet has not changed the fundamental roles played by territorial government.

We are optimists who love the internet and believe that it can and has made the world a better place. But we are realistic about the role of government and power in that future, and realists about the prospects for the future.

I regret to say that it has been the Chinese government that has done the most to prove our basic thesis correct. The Jello was, somehow, nailed to the wall. Despite nearly a decade of Westerners (most particularly Western newspaper columnists) assuming or hoping that the Net would bring down the Chinese state, it didn't happen; indeed it never even came close. And so, five years later the basic ideas in our book seem hard to contest. Consequently, this one particular species of Internet exceptionalism—the idea that the network has its own sovereignty in a sense, or is an exception to law—has weakened and may be dead.

In the summer of 2010, in fact, as if to hammer to point home, the Chinese government released a new White Paper on "Internet Policy." It made its centerpiece the phrase coined by the Internet exceptionalists of the 1990s: "Internet Sovereignty." However, that phrase did not mean what it did in the 1990s. Rather as the People's Daily, the state newspaper, explained, "Internet Sovereignty" means that "all foreign IT companies operating in China must abide by China's laws and [be] subject to Beijing's oversight."

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Leaving law aside, however, the larger questions of Internet Exceptionalism remain unanswered. It is surely one thing for the Internet to be a living exception to the legal system, a sovereign unto itself in some way. But is the Network an exception as an *information network*, as a means for a nation or world to communicate? Here, surely, the exceptionalist is on far stronger ground. Whatever you might say about efforts to use the Internet to avoid law, we cannot doubt that the "Networks of Networks" has changed the way we communicate in dramatic fashion. Technologically, and in its effects on business, culture and politics, the Internet seems, by almost any account, an exception, different from the way other systems of mass communications have operated, whether the telephone, radio, or the television.

This point seems so obvious as to be commonplace to anyone who's lived through the 1990s. Unlike television, radio and newspapers, which all are speech outlets for a privileged few, the Internet allows anyone to be a publisher. Unlike the private cable networks, the Internet is public and, in its totality, owned by no one. Unlike the telephone system, it carries video, graphics, the Web, and supports any idea anyone can come up with. It has played host to generations of new inventions, from email and the World Wide Web to the search engine, from shops like eBay and Amazon to social networking and blogging. It has challenged and changed industries, from entertainment to banking and travel industries. These features and others are what have made the Network so interesting for so many years.

The question is whether, however, the Internet is different in a *lasting* way. What do I mean, "a lasting way?" I rely on the sense that certain ideas, once spread, seem to lodge permanently, or for centuries at least—e.g., the idea of property, civil rights, or vaccination. Each is an idea that, once received, has a way of embedding itself so deeply as to be nearly impossible to dislodge. In contrast are ideas that, while doubtlessly important, tend, in retrospect, to form a rather interesting blip in history, a revolution that came and went. Will we

Information Office of the State Council of the People's Republic of China, *The Internet in China*, 2010, http://www.china.org.cn/government/whitepaper/node\_7093508.htm; *White paper explains Internet Sovereignty'*, PEOPLE'S DAILY ONLINE, June 9, 2010, http://english.peopledaily.com.cn/90001/90776/90785/7018630.html.

think of the open age of the Internet the way we think of communism, or the hula-hoop?<sup>7</sup>

If the Internet is exceptional in a lasting way, it must be for its ideology as expressed in its technology. And in this sense its exceptionalism is similar to American exceptionalism. Both the Nation and the Network were founded on unusual and distinct ideologies, following a revolution (one actual, another technological). In a typical account, writer Seymour Martin Lipset writes in *American Exceptionalism: A Double-Edged Sword:* "The United States is exceptional in starting from a revolutionary event ... it has defined its *raison d'être* ideologically." Or, as one-time Columbia professor Richard Hofstadter wrote in the 20th century, "it has been our fate as a nation to not to have ideologies, but to be one." De Tocqueville put American exceptionalism down to particular features of the United States—the religiosity of its founding, its proximity to yet freedom from Europe, and, as he wrote, "a thousand special causes." <sup>110</sup>

Looking at the Internet, its founding and its development, we can find the same pattern of a revolution, an ideology, and many "special causes." While much of it was purely technical, there were deeply revolutionary ideas, even by technological standards, at the heart of the Internet, even if sometimes they were arrived at in accidental fashion or for pragmatic reasons.

Of course, fully describing all that makes the Internet different would take another *Democracy in America*, and we have the benefit of many writers who've tried to do just that, whether in Katie Hafner and Matthew Lyon's *Where Wizards Stay up Late*, the oral accounts of its creators, classic works like J.H. Saltzer et al., *End-to-End Arguments in System Design*, or Jonathan Zittrain's *The Future of the Internet.*<sup>11</sup>

ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 519 (Henry Reeve trans., D. Appleton and Company 1904) (1831).

<sup>17</sup> I've spent some time thinking about these questions, and I want to suggest that it isn't really possible to answer the question in full without understanding the story of the networks that preceded the Internet. My fullest answer to the question I've posed, then, is in THE MASTER SWITCH (Knopf 2010), an effort to try and find the patterns, over time, that surround revolutionary technologies. This time, unlike in WHO CONTROLS THE INTERNET, when it comes to the broader question of the Internet as a way of moving information, I tend to side with the exceptionalists, though it is a close call.

<sup>8</sup> SEYMOUR MARTIN LIPSET, AMERICAN EXCEPTIONALISM 18 (1996).

<sup>9</sup> JAMES M. JASPER, RESTLESS NATION 38 (2000).

KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET (1996); J. H. Saltzer, D. P. Reed & D. D. Clark, End-To-End Arguments in System Design, 2 ACM Transactions on Computer Systems (TOCS) 277-288 (1984); Jonathan Zittrain, The Future of the Internet—And How to Stop It (2009).

To understand what makes the Internet different, the origins of the Internet bear careful examination. First, the Network's predecessors (the telephone, cable, etc.) were all commercial enterprises first and foremost, invented and deployed (in the U.S.) by private firms. The Internet, in contrast, was founded as a research network, explicitly non-commercial and public for the first decade of its existence. Private companies were involved, yes, but it was not a commercial operation in the same sense that, say, the cable networks always were.

Perhaps, thanks to its origins, the Internet was founded with an ideology that was far more explicit than most—a kind of pragmatic libertarianism whose influence remains. The early Internet scientists had various principles that they were proud of. One example is David Clark's memorable adage. "We reject: kings, presidents, and voting. We believe in: rough consensus and running code." Another is found in a famous Request For Comments written by Internet founder Jon Postel, setting forth the following as a principle for network operators: "Be conservative in what you do. Be liberal in what you accept from others." <sup>12</sup>

The Network constituted not just a technological advance, though it was that as well, but also a rejection of dominant theories of system design and, in a deeper sense, a revolution in information governance. The early Internet researchers were designing a radically decentralized network in an age—the mid-1960s—when highly centralized systems ran nearly every aspect of American and world life. In communications this was represented by AT&T, the great monopolist, with its mighty and near-perfect telephone network. But it could also be found in other aspects of society, from the enlarged Defense Department that ran the Cold War, the new, giant government agencies that ran social programs, and enormous corporations like General Motors, IBM, and General Electric.

So when Vint Cerf and his colleagues put the Internet on the TCP/IP protocol in 1982 (its effective "launch"), most information networks—and I don't mean this is a pejorative sense—could be described as top-down dictatorships. One entity—usually a firm or a part of the State (or both), like AT&T or the BBC, decided what the network would be. The Internet, in contrast, has long been governed more like a federation of networks, and in some respects, like a Republic of Users. That is implicit in the ability of anyone to own an IP address, set up a website, and publish information—something never true, and still not true, on any other network.

Paulina Borsook, How Anarchy Works, WIRED (Oct. 1995), http://www.wired.com/wired/archive/3.10/ietf.html; Jon Postel, Information Sciences Institute of the University of Southern California, DOD Standard Transmission Control Protocol 13 (1980), available at http://tools.ietf.org/html/rfc761#section-2.10.

Throughout its history, the universal Network has, true to the governance structure, seen a pattern of innovation that is unlike any other. This too is the subject of much scholarship and popular recognition—the mode of "decentralized innovation" that had led every several years or so to the next wonder, starting with email, through the Web, search engines, online retail, Web video, social networking, and onward. These innovations arrived in a highly disorganized fashion often led by amateurs and outsiders. The spread of computer-networking itself began with amateur geeks glorified in 1980s films like *War Games*. <sup>13</sup> It is hard to think of a truly important Internet invention that came from a firm that predated the Internet. Society-changers like Craigslist, eBay, Wikipedia and blogs are obviously the products of geeks.

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Can it last? Can the Internet remain, in this sense, exceptional? Whatever the Internet's original ideas, it is easy to argue that all this, too, shall pass. The argument from transience suggests that all that seems revolutionary about the Internet is actually just a phase common to speech inventions. In other words, the Internet is following a path already blazed by other revolutionary inventions in their time, from the telephone to radio. Such disruptive innovations usually do arrive as an outsider of some kind, and will pass through what you might call a "utopian" or "open" phase—which is where we are now. But that's just a phase. As time passes, even yesterday's radical new invention becomes the foundation and sole possession of one or more great firms, monopolists, or sometimes, the state, particularly in totalitarian regimes like the Soviet Union or the Third Reich. The openness ends, replaced with better production value and tighter controls. It is, in other words, back to normal, or at least what passed for normal for most of human history.

We might learn from the fate of the broadcast radio, the darling new technology of the 1920s. <sup>14</sup> In the 1920s, opening a radio station was relatively easy, not quite as easy as a website, but within the reach of amateurs. American radio was once radically decentralized, open and rather utopian in its aspirations. But by the 1930s, broadcast in the United States was increasing controlled by the chains—most of all, the National Broadcast Company, NBC, who brought better programming, but also much less of the amateur, open spirit. But that's nothing compared to countries like Germany and the Soviet Union, where radio became the domain of the state, used to control and cajole. In Germany, every citizen was issued a "people's receiver" tuned only to Nazi channels, and within

<sup>&</sup>lt;sup>13</sup> War Games (Metro-Goldwyn-Mayer 1983)

<sup>&</sup>lt;sup>14</sup> This story of radio can be found in TIM WU, THE MASTER SWITCH, chaps 3, 5 (2010).

the space of a decade, the free radio had became what Joseph Goebbels called the "spiritual weapon of the totalitarian state."<sup>15</sup>

Yet I find it hard to imagine such a dramatic or immediate fate for the Internet. It seems in so many ways too established, its values too enmeshed in society, to disappear in an instant.

Perhaps it would be more accurate to suggest that there are aspects of the Internet ideology that are more and less likely to fade, to become yesterday's ideas. At one extreme, the Internet's core technological ideas, protocol layering & packet-switching, seem unlikely to go anywhere. The reason is that these techniques have become the basis of almost all information technology, not just the Internet itself. The telephone networks are today layered and packet-switched, even if they don't rely on the Internet Protocol.

More vulnerable, however, are the Internet's early ideas of openness and decentralized operation—putting the intelligence in the edges, as opposed to the center of the network. Originally described by engineers as the E2E principle, and popularly contained in the catch-phrase "Net Neutrality," these principles have survived the arrival of broadband networks. Yet by its nature, Net Neutrality seems easier to upset, for discrimination in information systems has long been the rule, not the exception. There are, importantly, certain commercial advantages to discriminatory networking that are impossible to deny, temptations that even the Internet's most open firms find difficult to resist. So while I may personally think open networking is important for reasons related to innovation and free speech, it seems obvious to me that open networking principles can be dislodged from their current perch.

Another open question is whether some of the means of production and cultural creativity that are associated with the Internet are destined for lasting importance. We have recently lived through an era when it was not unusual for an amateur video or blog to gain a greater viewership than films made for tens of millions. But is that, Lessig's "remix culture," 16 a novelty of our times? We also live in era where free software is often better than that which you pay for. They are the products of open production systems, the subject of Yochai Benkler's *The Wealth of Networks*, the engines behind Linux and Wikipedia and other mass projects—as discussed in Benkler's essay in this collection. 17 Of course such systems have always existed, but will they retreat to secondary

Quoted in Garth S. Jowett, Garth Jowett & Victoria O'Donnell, Readings in Propaganda and Persuasion 132 (2005).

LAWRENCE LESSIG, REMIX: MAKING ART AND COMMERCE THRIVE IN THE HYBRID ECONOMY (2008).

<sup>17</sup> YOCHAI BENKLER, THE WEALTH OF NETWORKS (2007).

roles? Or will they perhaps become of primary importance for many areas of national life?

The only honest answer is that it is too early to tell. And yet, at the same time, the transience of *all* systems suggests that at least *some* of what we take for granted right now as intrinsic to our information life and to the nature of the Internet *will* fade.

The reasons are many. It might simply be that the underlying ideas just discussed turn out to have their limits. Or that they are subject to an almost natural cycle—excessive decentralization begins to make centralization more attractive, and vice versa. More sinisterly, it might be because forces disadvantaged by these ideas seem to undermine their power—whether concentrated forces, like a powerful state, or more subtle forces, like the human desire for security, simplicity and ease that has long powered firms from the National Broadcasting Corporation to Apple, Inc.

Whatever the reasons, and while I do think the Internet is exceptional (like the United States itself), I also think it will, come to resemble more "normal" information networks—indeed, it has already begun to do so in many ways. Exceptionalism, in short, cannot be assumed, but must be defended.

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I began this essay with a comparison between Internet and American exceptionalism. Yet I want to close by suggesting we can learn from the comparison in a slightly different sense. I've suggested that there is a natural tendency for any exceptional system to fade and transition back to observed patterns. But even if that's true, what is natural is not always normatively good, not always what we want. For example, it may very well be "natural" for a democracy, after a few decades or less, to ripen into a dictatorship of some kind, given the frustrations and inefficiencies of democratic governance. Cromwell and Napoleon are the bearers of that particular tradition, and it has certainly been the pattern over much of history.

But the idea of American Exceptionalism has included a commitment to trying to avoid that fate, even if it may be natural. Despite a few close calls, the United States remains an exception to the old rule that Republics inevitably collapse back into dictatorship under the sway of a great leader. The Internet, so far, is an exception to the rule that open networks inevitably close and become dominated by the State or a small number of mighty monopolists. Twenty-five years after .COM, we might say we still have a republic of information—if we can keep it.

### **Bibliography**

In lieu of extensive footnotes, I thought I'd provide here the books and articles that have, implicitly or explicitly, taken on the question of Internet Exceptionalism. Notice that, for those familiar in the field, this may lead to some unusual groupings—but the fundamental question is whether the project in question tries to argue the Internet is magically different or a repeat of ageold problems.

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