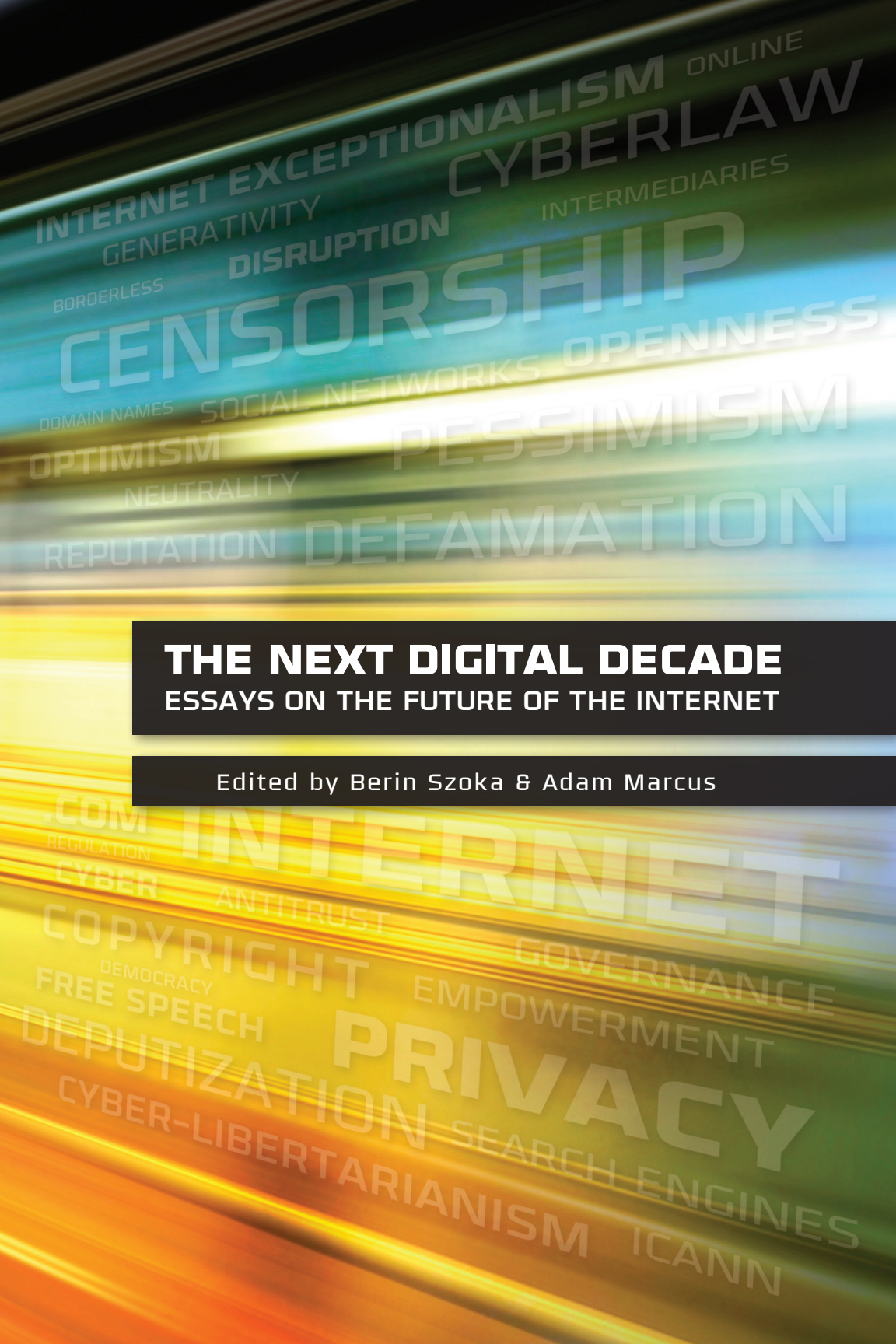

THE NEXT DIGITAL DECADE

ESSAYS ON THE FUTURE OF THE INTERNET

Edited by Berin Szoka & Adam Marcus

TECH FREEDOM

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Washington, D.C.

This work was published by TechFreedom (**TechFreedom.org**), a non-profit public policy think tank based in Washington, D.C. TechFreedom's mission is to unleash the progress of technology that improves the human condition and expands individual capacity to choose. We gratefully acknowledge the generous and unconditional support for this project provided by VeriSign, Inc.

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ISBN 978-1-4357-6786-7

Cover Designed by Jeff Fielding.

CHAPTER 1

THE INTERNET'S IMPACT ON CULTURE & SOCIETY: GOOD OR BAD?

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The Case for Internet Optimism, Part 1: Saving the Net from Its *Detractors*

By Adam Thierer*

Introduction: Two Schools of Internet Pessimism

Surveying the prevailing mood surrounding cyberlaw and Internet policy circa 2010, one is struck by the overwhelming sense of pessimism regarding the long-term prospects for a better future. "Internet pessimism," however, comes in two very distinct flavors:

1. **Net Skeptics, Pessimistic about the Internet Improving the Lot of Mankind**: The first variant of Internet pessimism is rooted in general skepticism about the supposed benefits of cyberspace, digital technologies, and information abundance. The proponents of this pessimistic view often wax nostalgic about some supposed "good 'ol days" when life was much better (although they can't seem to agree when those were). At a minimum, they want us to slow down and think twice about life in the Information Age and how it's personally affecting each of us. Occasionally, however, this pessimism borders on neo-Ludditism, with some proponents recommending steps to curtail what they feel is the destructive impact of the Net or digital technologies on culture or the economy. Leading proponents of this variant of Internet pessimism include: Neil Postman (*Technopoly: The Surrender of Culture to Technology*), Andrew Keen, (*The Cult of the Amateur: How Today's Internet is Killing our Culture*), Lee Siegel, (*Against the Machine: Being Human in the Age of the Electronic Mob*), Mark Helprin, (*Digital Barbarism*) and, to a lesser degree, Jaron Lanier (*You Are Not a Gadget*) and Nicholas Carr (*The Big Switch* and *The Shallows*).

2. **Net Lovers, Pessimistic about the Future of Openness**: A different type of Internet pessimism is on display in the work of many leading cyberlaw scholars today. Noted academics such as Lawrence Lessig, (*Code and Other Laws of Cyberspace*), Jonathan Zittrain (*The Future of the Internet—And How to Stop It*), and Tim Wu (*The Master Switch: The Rise and Fall of Information Empires*), embrace the Internet and digital technologies, but argue that they are "dying" due to a lack of sufficient care or collective oversight.

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> In particular, they fear that the "open" Internet and "generative" digital systems are giving way to closed, proprietary systems, typically run by villainous corporations out to erect walled gardens and quash our digital liberties. Thus, they are pessimistic about the long-term survival of the Internet that we currently know and love.

Despite their different concerns, two things unite these two schools of techno-pessimism. First, there is an elitist air to their pronouncements; a veritable "the rest of you just don't get it" attitude pervades much of their work. In the case of the Net skeptics, it's the supposed decline of culture, tradition, and economy that the rest of us are supposedly blind to, but which they see perfectly—and know how to rectify. For the Net Lovers, by contrast, we see this attitude on display when they imply that a Digital Dark Age of Closed Systems is unfolding since nefarious schemers in high-tech corporate America are out to suffocate Internet innovation and digital freedom more generally. The Net Lovers apparently see this plot unfolding, but paint the rest of us out to be robotic sheep being led to the cyber-slaughter: We are unwittingly using services (AOL in the old days; Facebook today) or devices (the iPhone and iPad) that play right into the hands of the very corporate schemers determined to trap us in high and tight walled gardens.

Unsurprisingly, this elitist attitude leads to the second belief uniting these two variants of Net pessimism: *Someone* or *something* must intervene to set us on a better course or protect those things that they regard as sacred. The critics either fancy themselves as the philosopher kings who can set things back on a better course, or imagine that such creatures exist in government today and can be tapped to save us from our impending digital doom—whatever it may be.

Dynamism vs. the Stasis Mentality

In both cases, these two schools of Internet pessimism have (a) over-stated the severity of the respective problems they've identified and (b) failed to appreciate the benefits of *evolutionary dynamism*. I borrow the term "dynamism" from Virginia Postrel, who contrasted the conflicting worldviews of *dynamism* and *stasis* so eloquently in her 1998 book, *The Future and Its Enemies*. Postrel argued that:

> The future we face at the dawn of the twenty-first century is, like all futures left to themselves, "emergent, complex messiness." Its "messiness" lies not in disorder, but in an order that is unpredictable, spontaneous, and ever shifting, a pattern created by millions of uncoordinated, independent decisions.[1]

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[1] VIRGINIA POSTREL, THE FUTURE AND ITS ENEMIES, at xv (1998).

"[T]hese actions shape a future no one can see, a future that is dynamic and inherently unstable," Postrel noted.[2] But that inherent instability and the uncomfortable realization that the future is, by its very nature, unknowable, leads to exactly the sort of anxieties we see on display in the works of *both* varieties of Internet pessimists today. Postrel made the case for embracing dynamism as follows:

> How we feel about the evolving future tells us who we are as individuals and as a civilization: Do we search for *stasis*—a regulated, engineered world? Or do we embrace *dynamism*—a world of constant creation, discovery, and competition? Do we value stability and control, or evolution and learning? Do we declare with [Tim] Appelo that "we're scared of the future" and join [Judith] Adams in decrying technology as "a killing thing"? Or do we see technology as an expression of human creativity and the future as inviting? Do we think that progress requires a central blueprint, or do we see it as a decentralized, evolutionary process? Do we consider mistakes permanent disasters, or the correctable by-products of experimentation? Do we crave predictability, or relish surprise? These two poles, stasis and dynamism, increasingly define our political, intellectual, and cultural landscape. The central question of our time is what to do about the future. And that question creates a deep divide.[3]

Indeed it does, and that divide is growing deeper as the two schools of Internet pessimism—unwittingly, of course—work together to concoct a lugubrious narrative of impending techno-apocalypse. It makes little difference whether the two schools disagree on the root cause(s) of all our problems; in the end, it's their common call for a more "regulated, engineered world" that makes them both embrace the same stasis mindset. Again, the air of elitism rears its ugly head, Postrel notes:

> Stasist social criticism… brings up the specifics of life only to sneer at or bash them. Critics assume that readers will share their attitudes and will see contemporary life as a problem demanding immediate action by the powerful and wise. This relentlessly hostile view of how we live, and how we may come to live, is distorted and dangerous. It overvalues the tastes of an articulate elite, compares the real world of trade-offs to fantasies of utopia, omits important details and connections,

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2 *Id.*

3 *Id.* at xiv.

> and confuses temporary growing pains with permanent catastrophes. It demoralizes and devalues the creative minds on whom our future depends. And it encourages the coercive use of political power to wipe out choice, forbid experimentation, short-circuit feedback, and trammel progress.[4]

In this essay, I focus on the first variant of Internet pessimism (the Net skeptics) and discuss their clash with Internet optimists. I form this narrative using the words and themes developed in various books published by Net optimists and pessimists in recent years. I make the dynamist case for what I call "pragmatic optimism" in that I argue that the Internet and digital technologies are reshaping our culture, economy and society—in most ways for the better (as the optimists argue), but not without some serious heartburn along the way (as the pessimists claim). My bottom line comes down to a simple cost-benefit calculus: *Were we really better off in the scarcity era when we were collectively suffering from information poverty*? Generally speaking, I'll take information abundance over information poverty any day! But we should not underestimate or belittle the disruptive impacts associated with the Information Revolution. We need to find ways to better cope with turbulent change in a dynamist fashion instead of embracing the stasis notion that we can roll back the clock on progress or recapture "the good 'ol days"—which actually weren't all that good.

In another essay in this book, I address the second variant of Internet pessimism (the Net lovers) and argue that reports of the Internet's death have been greatly exaggerated. Although the Net lovers will likely recoil at the suggestion that they are not dynamists, closer examination reveals their attitudes and recommendations to be deeply stasist. They fret about a cyber-future in which the Internet might not as closely resemble its opening epoch. Worse yet, many of them agree with what Lawrence Lessig said in his seminal—by highly pessimistic—1999 book, *Code and Other Laws of Cyberspace*, that "we have every reason to believe that cyberspace, left to itself, will not fulfill the promise of freedom. Left to itself, cyberspace will become a perfect tool of control."[5]

Lessig and his intellectual disciples—especially Zittrain and Wu—have continued to forecast a gloomy digital future unless *something is done* to address the Great Digital Closing we are supposedly experiencing. I will argue that, while many of us share their appreciation of the Internet's current nature and its early history, their embrace of the stasis mentality is unfortunate since it forecloses the spontaneous evolution of cyberspace and invites government

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4 *Id.* at xvii-xviii.

5 LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 5-6 (1999).

But first let us turn to the Net skeptics, who don't share such an appreciation of the potential benefits of cyberspace. Rather, their pessimism cuts deep and is rooted in overt hostility to all things digital.

The Familiar Cycle of Technological Revolutions

The impact of technological change on culture, learning, and morality has long been the subject of intense debate, and every technological revolution brings out a fresh crop of both pessimists and Pollyannas. Indeed, a familiar cycle has repeat itself throughout history whenever new modes of production (from mechanized agriculture to assembly-line production), means of transportation (water, rail, road, or air), energy production processes (steam, electric, nuclear), medical breakthroughs (vaccination, surgery, cloning), or communications techniques (telegraph, telephone, radio, television) have emerged.

The cycle goes something like this: A new technology appears. Those who fear the sweeping changes brought about by this technology see a sky that is about to fall. These "techno-pessimists" predict the death of the old order (which, ironically, is often a previous generation's hotly-debated technology that others wanted slowed or stopped). Embracing this new technology, they fear, will result in the overthrow of traditions, beliefs, values, institutions, business models, and much else they hold sacred. As Dennis Baron, author of *A Better Pencil*, has noted, "the shock of the new often brings out critics eager to warn us away."[6]

The Pollyannas, by contrast, look out at the unfolding landscape and see mostly rainbows in the air. Theirs is a rose-colored world in which the technological revolution *du jour* improves the general lot of mankind. If something must give, then the old ways be damned! For such "techno-optimists," progress means some norms and institutions must adapt—perhaps even disappear—for society to continue its march forward.

Our current Information Revolution is no different. It too has its share of techno-pessimists and techno-optimists who continue to debate the impact of technology on human existence.[7] Indeed, before most of us had even heard of

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6 DENNIS BARON, A BETTER PENCIL 12 (2009).

7 William Powers, author of Hamlet's BlackBerry: A Practical Philosophy for Building a Good Life in the Digital Age, reminds us that:

> whenever new devices have emerged, they've presented the kinds of challenges we face today—busyness, information overload, that sense of life being out of control. These challenges were as real two millennia ago as they are today, and throughout history, people have been grappling with them and looking for creative ways to manage life in the crowd.

the Internet, people were already fighting about it—or at least debating what the rise of the Information Age meant for our culture, society, and economy.

Web 1.0 Fight: Postman vs. Negroponte

In his 1992 anti-technology manifesto *Technopoly: The Surrender of Culture to Technology*, the late social critic Neil Postman greeted the unfolding Information Age with a combination of skepticism and scorn.[8] Indeed, Postman's book was a near-perfect articulation of the techno-pessimist's creed. "Information has become a form of garbage," he claimed, "not only incapable of answering the most fundamental human questions but barely useful in providing coherent direction to the solution of even mundane problems."[9] If left unchecked, Postman argued, America's new technopoly—"the submission of all forms of cultural life to the sovereignty of technique and technology"—would destroy "the vital sources of our humanity" and lead to "a culture without a moral foundation" by undermining "certain mental processes and social relations that make human life worth living."[10]

Postman opened his polemic with the well-known allegorical tale found in Plato's *Phaedrus* about the dangers of the written word. Postman reminded us how King Thamus responded to the god Theuth, who boasted that his invention of writing would improve the wisdom and memory of the masses relative to the oral tradition of learning. King Thamus shot back, "the discoverer of an art is not the best judge of the good or harm which will accrue to those who practice it." King Thamus then passed judgment himself about the impact of writing on society, saying he feared that the people "will receive a quantity of information without proper instruction, and in consequence be thought very knowledgeable when they are for the most part quite ignorant."

And so Postman—fancying himself a modern Thamus—cast judgment on today's comparable technological advances and those who would glorify them:

> being out of control. These challenges were as real two millennia ago as they are today, and throughout history, people have been grappling with them and looking for creative ways to manage life in the crowd.
>
> WILLIAM POWERS, HAMLET'S BLACKBERRY: A PRACTICAL PHILOSOPHY FOR BUILDING A GOOD LIFE IN THE DIGITAL AGE 5 (2010). Similarly, Baron notes that "from the first days of writing to the present, each time a new communication technology appeared, people had to learn all over again how to use it, how to respond to it, how to trust the documents it produced." DENNIS BARON, A BETTER PENCIL 5 (2009).

8 NEIL POSTMAN, TECHNOPOLY: THE SURRENDER OF CULTURE TO TECHNOLOGY (1992).

9 *Id.* at 69-70.

10 *Id.* at 52, xii.

> we are currently surrounded by throngs of zealous Theuths, one-eyed prophets who see only what new technologies can do and are incapable of imagining what they will *undo*. We might call such people Technophiles. They gaze on technology as a lover does on his beloved, seeing it as without blemish and entertaining no apprehension for the future. They are therefore dangerous and to be approached cautiously. … If one is to err, it is better to err on the side of Thamusian skepticism.[11]

Nicholas Negroponte begged to differ. An unapologetic Theuthian technophile, the former director of the MIT Media Lab responded on behalf of the techno-optimists in 1995 with his prescient polemic, *Being Digital*.[12] It was a paean to the Information Age, for which he served as one of the first high prophets—with *Wired* magazine's back page serving as his pulpit during the many years he served as a regular columnist.

Appropriately enough, the epilogue of Negroponte's *Being Digital* was entitled "An Age of Optimism" and, like the rest of the book, it stood in stark contrast to Postman's pessimistic worldview. Although Negroponte conceded that technology indeed had a "dark side" in that it could destroy much of the old order, he believed that destruction was both inevitable and not cause for much concern. "Like a force of nature, the digital age cannot be denied or stopped," he insisted, and we must learn to appreciate the ways "digital technology can be a natural force drawing people into greater world harmony."[13] (This sort of techno-determinism is a theme found in many of the Internet optimist works that followed Negroponte.)

To Postman's persistent claim that America's technopoly lacked a moral compass, Negroponte again conceded the point but took the glass-is-half-full view: "Computers are not moral; they cannot resolve complex issues like the rights to life and to death. But being digital, nevertheless, does give much cause for optimism."[14] His defense of the digital age rested on the "four very powerful qualities that will result in its ultimate triumph: decentralizing, globalizing, harmonizing, and empowering."[15] Gazing into his techno-crystal ball in 1995, Negroponte forecast the ways in which those qualities would revolutionize society:

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11 *Id.* at 5.

12 NICHOLAS NEGROPONTE, BEING DIGITAL (1995).

13 *Id.* at 229, 230.

14 *Id.* at 228-9.

15 *Id.* at 229.

> The access, the mobility, and the ability to effect change are what will make the future so different from the present. The information superhighway may be mostly hype today, but it is an understatement about tomorrow. It will exist beyond people's wildest predictions. As children appropriate a global information resource, and as they discover that only adults need learner's permits, we are bound to find new hope and dignity in places where very little existed before.[16]

In many ways, that's the world we occupy today: one of unprecedented media abundance and unlimited communications and connectivity opportunities.

But the great debate about the impact of digitization and information abundance did not end with Postman and Negroponte. Theirs was but Act I in a drama that continues to unfold, and grows more heated and complex with each new character on the stage. "This conflict between stability and progress, security and prosperity, dynamism and stasis, has led to the creation of a major political fault line in American politics," argues Robert D. Atkinson: "On one side are those who welcome the future and look at the New Economy as largely positive. On the other are those who resist change and see only the risks of new technologies and the New Economy." [17] Atkinson expands on this theme in another essay in this collection.[18]

Web War II

The disciples of Postman and Negroponte are a colorful, diverse lot. The players in Act II of this drama occupy many diverse professions: journalists, technologists, business consultants, sociologists, economists, lawyers, etc. The two camps disagree with each other even more vehemently and vociferously about the impact of the Internet and digital technologies than Postman and Negroponte did.

In Exhibit 1, I have listed the Internet optimists and pessimists alongside their key works. This very binary treatment obviously cannot do justice to the varying shades of optimism or pessimism in in each, but is nonetheless helpful.

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16 *Id.* at 231.

17 ROBERT D. ATKINSON, THE PAST AND FUTURE OF AMERICA'S ECONOMY 201 (2004). "As a result," he says, "a political divide is emerging between preservationists who want to hold onto the past and modernizers who recognize that new times require new means."

18 Robert D. Atkinson, *Who's Who in Internet Politics: A Taxonomy of Information Technology Policy & Politics*, infra at 162.

Exhibit 1

Theuthian Technophiles ("The Internet Optimists")	Thamusian Technophobes ("The Internet Pessimists")
Nicholas Negroponte, ***Being Digital*** (1995)	Neil Postman, ***Technopoly: The Surrender of Culture to Technology*** (1993)
Kevin Kelly, ***Out of Control: The New Biology of Machines, Social Systems, and the Economic World*** (1995)	Sven Birkerts, ***The Gutenberg Elegies: The Fate of Reading in an Electronic Age*** (1994)
Virginia Postrel, ***The Future and Its Enemies*** (1998)	Clifford Stoll, ***High-Tech Heretic: Reflections of a Computer Contrarian*** (1999)
James Surowiecki, ***The Wisdom of Crowds*** (2004)	Cass Sunstein, ***Republic.com*** (2001)
Chris Anderson, ***The Long Tail: Why the Future of Business is Selling Less of More*** (2006)	Todd Gitlin, ***Media Unlimited: How the Torment of Images and Sounds Overwhelms Our Lives*** (2002)
Steven Johnson, ***Everything Bad is Good For You*** (2006)	Todd Oppenheimer, ***The Flickering Mind: Saving Education from the False Promise of Technology*** (2003)
Glenn Reynolds, ***An Army of Davids: How Markets and Technology Empower Ordinary People to Beat Big Media, Big Government, and Other Goliaths*** (2006)	Andrew Keen, ***The Cult of the Amateur: How Today's Internet is Killing our Culture*** (2007)
Yochai Benkler, ***The Wealth of Networks: How Social Production Transforms Markets and Freedom*** (2006)	Steve Talbott, ***Devices of the Soul: Battling for Our Selves in an Age of Machines*** (2007)
Clay Shirky, ***Here Comes Everybody: The Power of Organizing without Organizations*** (2008)	*Nick Carr,* ***The Big Switch: Rewiring the World, from Edison to Google*** (2008)
Don Tapscott & Anthony D. Williams, ***Wikinomics: How Mass Collaboration Changes Everything*** (2008)	

Exhibit 1 Continued

Theuthian Technophiles ("The Internet Optimists")	**Thamusian Technophobes ("The Internet Pessimists")**
Jeff Howe, ***Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business*** (2008) Tyler Cowen, ***Create Your Own Economy: The Path to Prosperity in a Disordered World*** (2009) Dennis Baron, ***A Better Pencil: Readers, Writers, and the Digital Revolution*** (2009) Jeff Jarvis, ***What Would Google Do?*** (2009) Clay Shirky, ***Cognitive Surplus: Creativity and Generosity in a Connected Age*** (2010) Nick Bilton, ***I Live in the Future & Here's How It Works*** (2010) *Kevin Kelly,* ***What Technology Wants*** (2010)	Lee Siegel, ***Against the Machine: Being Human in the Age of the Electronic Mob*** (2008) Mark Bauerlein, ***The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future*** (2008) Mark Helprin, ***Digital Barbarism: A Writer's Manifesto*** (2009) Maggie Jackson, ***Distracted: The Erosion of Attention and the Coming Dark Age*** (2009) John Freeman, ***The Tyranny of E-Mail: The Four-Thousand-Year Journey to Your Inbox*** (2009) Jaron Lanier, ***You Are Not a Gadget*** (2010) Nick Carr, ***The Shallows: What the Internet Is Doing to Our Brains*** (2010) William Powers, ***Hamlet's BlackBerry: A Practical Philosophy for Building a Good Life in the Digital Age*** (2010)

In Exhibit 2, I have sketched out the major lines of disagreement between these two camps and divided those disagreements into (1) **Cultural / Social beliefs** vs. (2) **Economic / Business beliefs**.

Exhibit 2

Optimists	Pessimists
Cultural / Social beliefs	
Net is **participatory**	Net is **polarizing**
Net facilitates **personalization** (welcome of "Daily Me" that digital tech allows)	Net facilitates **fragmentation** (fear of the "Daily Me")
"a **global village**"	**balkanization** and fears of "**mob rule**"
heterogeneity / encourages diversity of thought and expression	**homogeneity** / Net leads to close-mindedness
allows **self-actualization**	**diminishes personhood**
Net a tool of **liberation & empowerment**	Net a tool of frequent **misuse & abuse**
Net can help **educate** the masses	**dumbs down** the masses
anonymous communication encourages vibrant debate + whistleblowing (a net good)	anonymity debases culture & leads to lack of accountability
welcome **information abundance**; believe it will create new opportunities for learning	concern about **information overload**; esp. impact on learning & reading
Economic / Business beliefs	
benefits of "Free" (increasing importance of "**gift economy**")	**costs of "Free"** ("free" = threat to quality & business models)
mass collaboration is generally more important	**individual effort** is generally more important
embrace of "**amateur**" creativity	superiority of **"professionalism**"
stress importance of "**open systems**" of production	stress importance of "**proprietary**" models of production
"wiki" model = **wisdom of crowds;** benefits of **crowdsourcing**	"wiki" model = **stupidity of crowds;** collective intelligence is oxymoron; + "**sharecropper**" concern about exploitation of free labor

When you boil it all down, there are two major points of contention between the Internet optimists and pessimists:

1. The impact of technology on **learning & culture** and the role of **experts vs. amateurs** in that process.

2. The promise—or perils—of **personalization**, for both individuals and society.

Each dispute is discussed in more detail below.

Differences Over Learning, Culture & "Truth"

As with Theuth and Thamus, today's optimists and skeptics differ about who is the best judge of what constitutes progress, authority, and "truth" and how technological change will impact these things.

The Pessimists' Critique

Consider the heated debates over the role of "amateur" creations, user-generation content, and peer-based forms of production. Pessimists tend to fear the impact of the Net and the rise of what Andrew Keen has called "the cult of the amateur."[19] They worry that "professional" media or more enlightened voices and viewpoints might be drowned out by a cacophony of competing—but less compelling or enlightened—voices and viewpoints. Without "enforceable scarcity" and protection for the "enlightened class," the pessimists wonder how "high quality" news or "high art" will be funded and disseminated. Some, like Keen, even suggest the need to "re-create media scarcity" to save culture or professional content creators.[20]

Some of these pessimists clearly think in zero-sum terms: More "amateur" production seems to mean less "professional" content creation will be possible. For example, Lee Siegel, author of *Against the Machine: Being Human in the Age of the Electronic Mob*, says that by empowering the masses to have more of a voice, "unbiased, rational, intelligent, and comprehensive news … will become less

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19 ANDREW KEEN, THE CULT OF THE AMATEUR: HOW TODAY'S INTERNET IS KILLING OUR CULTURE (2007).

20 Andrew Keen, *Art & Commerce: Death by YouTube*, ADWEEK, Oct. 15, 2007, **http://web.archive.org/web/20080107024552/http:/www.adweek.com/aw/magazine/article_display.jsp?vnu_content_id=1003658204**. For a response, see Adam Thierer, *Thoughts on Andrew Keen, Part 2: The Dangers of the Stasis Mentality*, TECHNOLOGY LIBERATION FRONT, Oct. 18, 2007, **http://techliberation.com/2007/10/18/thoughts-on-andrew-keen-part-2-the-dangers-of-the-stasis-mentality**.

and less available."[21] "[G]iving everyone a voice," he argues, "can also be a way to keep the most creative, intelligent, and original voices from being heard."[22]

The centrality of Wikipedia, the collaborative online encyclopedia, to this discussion serves as a microcosm of the broader debate between the optimists and the pessimists. Almost every major optimist and pessimist tract includes a discussion of Wikipedia; it generally serves as a hero in the works of the former and a villain in the latter. For the pessimists, Wikipedia marks the decline of authority, the death of objectivity, and the rise of "mobocracy" since it allows "anyone with opposable thumbs and a fifth-grade education [to] publish anything on any topic."[23] They fear that "truth" becomes more relativistic under models of peer collaboration or crowd-sourced initiatives.[24]

The pessimists also have very little good to say about YouTube, blogs, social networks, and almost all user-generated content. They treat them with a combination of confusion and contempt. "[S]elf-expression is not the same thing as imagination," or art, Siegel argues.[25] Instead, he regards the explosion of online expression as the "narcissistic" bloviation of the masses and argues it is destroying true culture and knowledge. Echoing Postman's assertion that "information has become a form of garbage," Siegel says that the "Under the influence of the Internet, knowledge is withering away into information."[26] Our new age of information abundance is not worth celebrating, he says, because "information is powerlessness."[27]

Some pessimists argue that all the new information and media choices are largely false choices that don't benefit society. For example, Siegel disputes what he regards as overly-romanticized notions of "online participation" and "personal democracy." Keen goes further referring to them as "the great seduction." He says "the Web 2.0 revolution has peddled the promise of

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21 LEE SIEGEL, AGAINST THE MACHINE: BEING HUMAN IN THE AGE OF THE ELECTRONIC MOB 165 (2008). For a review of the book, *see* Adam Thierer, *Book Review: Lee Siegel's* Against the Machine, TECHNOLOGY LIBERATION FRONT, Oct. 20, 2008, **http://techliberation.com/2008/10/20/book-review-lee-siegel%E2%80%99s-against-the-machine**.

22 *Id.* at 5.

23 Keen, *supra* note 19, at 4.

24 "Wikipedia, with its video-game like mode of participation, and with its mountains of trivial factoids, of shifting mounds of gossip, of inane personal details, is knowledge in the process of becoming information." Siegel, *supra* note *21,* at 152.

25 *Id.* at 52.

26 *Id.* at 152.

27 *Id.* at 148.

bringing more truth to more people … but this is all a smokescreen."[28] "What the Web 2.0 revolution is really delivering," he argues, "is superficial observations of the world around us rather than deep analysis, shrill opinion rather than considered judgment."[29]

Occasionally, the pessimists resort to some fairly immature name-calling tactics while critiquing Information Age culture. "It would be one thing if such a [digital] revolution produced Mozarts, Einsteins, or Raphaels," says novelist Mark Helprin, "but it doesn't... It produces mouth-breathing morons in backward baseball caps and pants that fall down; Slurpee-sucking geeks who seldom see daylight; pretentious and earnest hipsters who want you to wear bamboo socks so the world won't end … beer-drinking dufuses who pay to watch noisy cars driving around in a circle for eight hours at a stretch."[30]

Some pessimists also claim that proliferating new media choices are merely force-fed commercial propaganda or that digital technologies are spawning needless consumerism. "New technologies unquestionably make purchases easier and more convenient for consumers. To this extent, they do help," says the prolific University of Chicago law professor Cass Sunstein. "But they help far less than we usually think, because they accelerate the consumption treadmill without making life much better for consumers of most goods."[31]

In Siegel's opinion, everyone is just in it for the money. "Web 2.0 is the brainchild of businessmen," and the "producer public" is really just a "totalized 'consumerist' society."[32] Countless unpaid bloggers—in it for the love of the conversation and debate—are merely brainwashed sheep whom Siegel argues just don't realize the harm they are doing. "[T]he bloggers are playing into the hands of political and financial forces that want nothing more than to see the critical, scrutinizing media disappear."[33] He reserves special scorn for Net evangelists who believe that something truly exciting is happening with the new online conversation. According to Siegel, they are simply "in a mad rush to earn profits or push a fervent idealism."[34]

The pessimists also fear that these new technologies and trends could have profound ramifications not just for entertainment culture, but also for the

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28 Keen, *supra* note 19, at 16.

29 *Id.*

30 MARK HELPRIN, DIGITAL BARBARISM: A WRITER'S MANIFESTO 57 (2009).

31 CASS SUNSTEIN, REPUBLIC.COM 121 (2010).

32 Siegel, *supra* note 21, at 128.

33 *Id.* at 141.

34 *Id.* at 25-6.

future of news and professional journalism. They worry about the loss of trusted intermediaries and traditional authorities. For example, Keen fears that Wikipedia, "is almost single-handedly killing the traditional information business."[35] They also argue that "free culture" isn't free at all; it's often just parasitic copying or blatant piracy.

Similarly, Nick Carr and Jaron Lanier worry about the rise of "digital sharecropping," where a small group of elites make money off the back of free labor. To Carr, many new Web 2.0 sites and services "are essentially agglomerations of the creative, unpaid contributions of their members. In a twist on the old agricultural practice of sharecropping, the site owners provide the digital real estate and tools, let the members do all the work, and then harvest the economic riches."[36] And in opening his book, Lanier says "Ultimately these words will contribute to the fortunes of those few who have been able to position themselves as lords of the computing clouds."[37]

Finally, some pessimists worry deeply about the impact of computers and digital technologies on learning. They fear these trends will inevitably result in a general "dumbing down" of the masses or even the disappearance of reading, writing, and other arts. Typifying this view is Mark Bauerlein's *The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future* (2008), but similar concerns are on display in the works of Sven Birkerts,[38] Clifford Stoll,[39] Todd Gitlin,[40] and Todd Oppenheimer.[41]

The Optimists' Response

The optimists' response is rooted in the belief that, despite their highly disruptive nature, the Internet and new digital technologies empower and enlighten individuals and, therefore, generally benefit society.

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35 Keen, *supra* note 19, at 131.

36 NICHOLAS CARR, THE BIG SWITCH: REWIRING THE WORLD, FROM EDISON TO GOOGLE 137-8 (2008).

37 LANIER, YOU ARE NOT A GADGET at 1 (2010).

38 SVEN BIRKERTS, THE GUTENBERG ELEGIES: THE FATE OF READING IN AN ELECTRONIC AGE (1994).

39 CLIFFORD STOLL, HIGH-TECH HERETIC: REFLECTIONS OF A COMPUTER CONTRARIAN (1999).

40 TODD GITLIN, MEDIA UNLIMITED: HOW THE TORMENT OF IMAGES AND SOUNDS OVERWHELMS OUR LIVES (2002).

41 TODD OPPENHEIMER, THE FLICKERING MIND: SAVING EDUCATION FROM THE FALSE PROMISE OF TECHNOLOGY (2003).

The optimists tend to argue that new modes of production (especially peer-based production) will offer an adequate—if not superior—alternative to traditional modalities of cultural or artistic production. Despite displacing some institutions and cultural norms, they claim digital technologies create more opportunities. They speak of "collective intelligence,"[42] the "wisdom of crowds,"[43] the importance of peer production,[44] and the rise of what futurist Alvin Toffler first referred to as "prosumers."[45] "There has been a fundamental shift in the balance of power between consumers and salesmen over the last generation and it points in the direction of consumers," Tyler Cowen argues in his book, *Create Your Own Economy: The Path to Prosperity in a Disordered World.*[46]

The peer production trend is stressed in works such as *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, by Yochai Benkler,[47] and *Wikinomics: How Mass Collaboration Changes Everything*, by Don Tapscott and Anthony D. Williams.[48] "A new economic democracy is emerging in which we all have a lead role," claim Tapscott and Williams,[49] because "the economics of production have changed significantly."[50]

Most optimists also argue that new business models will evolve to support what had previously been provided by professional content creators or news providers. Glenn Reynolds (*An Army of Davids*) and Dan Gillmor (*We the Media*) refer of the rise of "we-dia" (user-generated content and citizen journalism) that is an increasingly important part of the modern media landscape. Gillmor, a former *San Jose Mercury News* columnist, speaks of "a modern revolution … because technology has given us a communications toolkit that allows anyone to become a journalist at little cost and, in theory, with global reach. Nothing like this has ever been remotely possible before," he argues.[51] And the optimists generally don't spend much time lamenting the obliteration of large media

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42 HENRY JENKINS, CONVERGENCE CULTURE: WHERE OLD AND NEW MEDIA COLLIDE 4 (2006).

43 JAMES SUROWIECKI, THE WISDOM OF CROWDS (2004).

44 DON TAPSCOTT & ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGES EVERYTHING 1, 67 (2008).

45 ALVIN TOFFLER, THE THIRD WAVE 265 (1980).

46 TYLER COWEN, CREATE YOUR OWN ECONOMY: THE PATH TO PROSPERITY IN A DISORDERED WORLD 117 (2009).

47 YOCHAI BENKLER, THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM (2006).

48 Tapscott & Williams, *supra* note 44, at 15.

49 *Id.* at 15.

50 *Id.* at 68.

51 DAN GILLMOR, WE THE MEDIA at xii (2004).

institutions, either because they think little of their past performance or, alternatively, believe that whatever "watchdog" role they played can be filled by others. "We are seeing the emergence of new, decentralized approaches to fulfilling the watchdog function and to engaging in political debate and organization," Benkler claims.[52]

Optimists also believe that the Information Age offers real choices and genuine voices, and they vociferously dispute charges of diminished quality by prosumers, amateur creators, new media outlets, and citizen journalists. Moreover, they do not fear the impact of these new trends and technologies on learning or culture. "Surely the technophobes who romanticize the pencil don't want to return us to the low literacy rates that characterized the good old days of writing with pencils and quills," Baron asks. "Still, a few critics object to the new technologies because they enable too many people to join the guild of writers, and they might paraphrase Thoreau's objection to the telegraph: these new computer writers, it may be, have nothing to say to one another."[53]

Finally, in addressing the sharecropper concern raised by Carr and Lanier, the optimists insist most people aren't in it for the money. Shirky notes that "Humans intrinsically value a sense of connectedness," and much of what they do in the social media world is a true labor of love.[54] "Amateurs aren't just pint-sized professionals; people are sometimes happy to do things for reasons that are incompatible with getting paid," he says.[55] Mostly they do it for love of knowledge or a belief in the importance of "free culture," the optimists claim.

The Debate Over the Promise—or Perils—of Personalization

Optimists and pessimists tend to agree that the Internet and "Web 2.0" is leading to more "personalized" media and information experiences. They disagree vehemently, however, on whether this is good or bad. They particularly disagree on what increased information customization means for participatory democracy and the future of relations among people of diverse backgrounds and ideologies. Finally, they differ on how serious of a problem "information overload" is for society and individuals.

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52 Benkler, *supra* note 47, at 11.

53 DENNIS BARON, A BETTER PENCIL 159 (2009).

54 CLAY SHIRKY, COGNITIVE SURPLUS: CREATIVITY AND GENEROSITY IN A CONNECTED AGE 58-9 (2010).

55 *Id.*

The Optimists' Case

Let's take the optimists first this time.

The optimists tend to embrace what Nicholas Negroponte first labeled "The Daily Me" (*i.e.*, hyper-personalized news, culture, and information). In 1995, Negroponte asked us to:

> Imagine a future in which your interface agent can read every newswire and newspaper and catch every TV and radio broadcast on the planet, and then construct a personalized summary. This kind of newspaper is printed in an edition of one.…
>
> Imagine a computer display of news stories with a knob that, like a volume control, allows you to crank personalization up or down. You could have many of these controls, including a slider that moves both literally and politically from left to right to modify stories about public affairs. These controls change your window onto the news, both in terms of size and its editorial tone. In the distant future, interface agents will read, listen to, and look at each story in its entirety. In the near future, the filtering process will happen by using headers, those bits about bits.[56]

That future came about sooner than even Negroponte could have predicted. We all have a "Daily Me" at our disposal today thanks to RSS feeds, Facebook, Google Alerts, Twitter, email newsletters, instant messaging, and so on. These tools, among others, can provide tailored, automated search results served up instantaneously. The optimists argue that this increased tailoring and personalization of our media experiences empowers heretofore silenced masses. This worldview is typified by the title of Glenn Reynolds' book: *An Army of Davids: How Markets and Technology Empower Ordinary People to Beat Big Media, Big Government and Other Goliaths*.[57] The optimists argue that our "participatory culture" promotes greater cultural heterogeneity and gives everyone a better chance to be heard. "In a world of media convergence, every important story gets told, every brand gets sold, and every consumer gets courted across multiple media platforms," says Henry Jenkins, author of *Convergence Culture*.[58]

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56 Negroponte, *supra* note 12, at 153-54.

57 GLENN REYNOLDS, AN ARMY OF DAVIDS: HOW MARKETS AND TECHNOLOGY EMPOWER ORDINARY PEOPLE TO BEAT BIG MEDIA, BIG GOVERNMENT AND OTHER GOLIATHS (2006).

58 HENRY JENKINS, CONVERGENCE CULTURE: WHERE OLD AND NEW MEDIA COLLIDE 3 (2006). Tapscott & Williams, *supra* note 44, at 41.

Again, they stress the empowering nature of digital technology as a good in and of itself. "The mass amateurization of publishing undoes the limitations inherent in having a small number of traditional press outlets," Shirky claims.[59] This leads to greater openness, transparency, exposure to new thinking and opinions, and a diversity of thought and societal participation. Shirky speaks of the "cognitive surplus" unleashed by these changes and its myriad benefits for society and culture:

> The harnessing of our cognitive surplus allows people to behave in increasingly generous, public, and social ways, relative to their old status as consumers and couch potatoes. The raw material of this change is the free time available to us, time we can commit to projects that range from the amusing to the culturally transformative. … Flexible, cheap, and inclusive media now offers us opportunities to do all sorts of things we once didn't do. In the world of "the media," we were like children, sitting quietly at the edge of a circle and consuming whatever the grown-ups in the center of the circle produced. That has given way to a world in which most forms of communication, public and private, are available to everyone in some form.[60]

Shirky even suggests that "The world's cognitive surplus is so large that small changes can have huge ramifications in aggregate," and have beneficial impacts on politics, advocacy, and "generosity."

When it comes to concerns about "information overload," most optimists see little reason for concern. Tyler Cowen argues that using search tools like Google and other information gathering and processing technologies actually "lengthen our attention spans in another way, namely by allowing greater specialization of knowledge:"[61]

> We don't have to spend as much time looking up various facts and we can focus on the particular areas of interest, if only because general knowledge is so readily available. It's never been easier to wrap yourself up in a long-term intellectual project, yet without losing touch with the world around you.

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59 CLAY SHIRKY, HERE COMES EVERYBODY: THE POWER OF ORGANIZING WITHOUT ORGANIZATIONS 65 (2008).

60 CLAY SHIRKY, COGNITIVE SURPLUS, *supra* note 54, at 63.

61 TYLER COWEN, CREATE YOUR OWN ECONOMY: THE PATH TO PROSPERITY IN A DISORDERED WORLD 55 (2009).

> As for information overload, it is you who chooses how much "stuff" you want to experience and how many small bits you want to put together … . The quantity of information coming our way has exploded, but so has the quality of our filters.[62]

Chris Anderson previously made this point in his book, *The Long Tail*. Anderson defined filters as "the catch-all phrase for recommendations and all the other tools that help you find quality in the Long Tail" and noted that "these technologies and services sift through a vast array of choices to present you with the ones that are most right for you."[63] "The job of filters is to screen out [the] noise" or information clutter, Anderson says.[64] Cowen argues that the filtering technologies are getting better at this sifting and processing process, *but so too are humans*, he says. The key to this, he argues, is that we are getting better at "ordering" information.

On balance, therefore, the optimists argue that personalization benefits our culture and humanity. Dennis Baron concludes, "English survives, conversation thrives online as well as off, and on balance, digital communications seems to be enhancing human interaction, not detracting from it."[65]

The Pessimists' Response

The pessimists argue that all this Pollyannaish talk about a new age of participatory democracy is bunk. Instead of welcoming increased information and media personalization, they lament it. They fear that "The Daily Me" that the optimists laud will lead to homogenization, close-mindedness, an online echo-chamber, information overload, corporate brainwashing, *etc.* Worst, hyper-customization of websites and online technologies will cause extreme social "fragmentation," "polarization," "balkanization," "extremism" and even the decline of deliberative democracy.[66]

Siegel and Keen are probably the most searing in this critique. To Siegel, for example, the "Daily Me" is little more that the creation of a "narcissistic culture" in which "exaggeration" and the "loudest, most outrageous, or most

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62 *Id.*

63 CHRIS ANDERSON, THE LONG TAIL 108 (2006).

64 *Id.* at 115.

65 DENNIS BARON, A BETTER PENCIL 135 (2009).

66 Carr worries that every little choice moves us close toward such social isolation: "Every time we subscribe to a blog, add a friend to our social network, categorize an email message as spam, or even choose a site from a list of search results, we are making a decision that defines, in some small way, whom we associate with and what information we pay attention to." NICHOLAS CARR, THE BIG SWITCH: REWIRING THE WORLD, FROM EDISON TO GOOGLE 160 (2008).

extreme voices sway the crowd of voices this way; the cutest, most self-effacing, most ridiculous, or most transparently fraudulent of voices sway the crowd of voices that way."[67] He calls Web 2.0 "democracy's fatal turn" in that, instead of "allowing individuals to create their own cultural and commercial choices," it has instead created "a more potent form of homogenization."[68] Keen fears the rise of "a dangerous form of digital narcissism" and "the degeneration of democracy into the rule of the mob and the rumor mill."[69]

This echoes concerns first raised by Cass Sunstein in his 2001 book *Republic.com*.[70] In that book, Sunstein referred to Negroponte's "Daily Me" in contemptuous terms, saying that the hyper-customization of websites and online technologies was causing extreme social fragmentation and isolation that could lead to political extremism. "A system of limitless individual choices, with respect to communications, is not necessarily in the interest of citizenship and self-government," he wrote.[71] Sunstein was essentially claiming that the Internet is breeding a dangerous new creature: Anti-Democratic Man.[72] "Group polarization is unquestionably occurring on the Internet," he proclaimed, and it is weakening what he called the "social glue" that binds society together and provides citizens with a common "group identity."[73] If that continues unabated, Sunstein argued, the potential result could be nothing short of the death of deliberative democracy and the breakdown of the American system of government.

Some of the pessimists, like Keen, go further and claim that "the moral fabric of our society is being unraveled by Web 2.0. It seduces us into acting on our most deviant instincts and allows us to succumb to our most destructive vices. And it is corroding the values we share as a nation."[74] Nick Carr summarizes the views of the pessimists when he says: "it's clear that two of the hopes most dear to the Internet optimists—that the Web will create a more bountiful culture and that it will promote greater harmony and understanding—should be treated

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67 Siegel, *supra* note 21, at 79.

68 *Id.* at 67.

69 Keen, *supra* note 19, at 54-5.

70 CASS SUNSTEIN, REPUBLIC.COM (2001).

71 *Id.* at 123.

72 *See* Adam Thierer, *Saving Democracy from the Internet*, REGULATION (Fall 2001) 78-9, **http://www.cato.org/pubs/regulation/regv24n3/inreview.pdf**.

73 Sunstein, *supra*, at 71, 89.

74 Keen, *supra* note 19, at 163.

with skepticism. Cultural impoverishment and social fragmentation seem equally likely outcomes."[75]

Another common theme in the works of the pessimists is summarized by the title of Siegel's book (*Against the Machine*). They fear the "mechanization of the soul"[76] or humanity's "surrender" to "the machine revolution."[77] In opening of *You Are Not a Gadget*, Lanier fears that "these words will mostly be read by nonpersons—automatons or numb mobs composed of people who are no longer acting as individuals."[78] "The trick is not to subject man and nature to the laws of the machine," says Helprin, "but rather to control the machine according to the laws and suggestions of nature and human nature. To subscribe to this does not make one a Luddite."[79]

Finally, the pessimists are also concerned about the impact of online anonymity on human conduct and language. They argue anonymity leads to less accountability or, more simply, just plain bad manners. "If our national conversation is carried out by anonymous, self-obsessed people unwilling to reveal their real identities, then," Keen argues, "community denigrates into anarchy."[80]

So Who's Right?

On balance, the optimists generally have the better of the argument today. We really are better off in an age of information abundance than we were in the scarcity era we just exited. Nonetheless, the pessimists make many fair points that deserve to be taken seriously. But they need a more reasonable articulation of those concerns and a constructive plan for how to move forward without a call for extreme reactionary solutions.

A hybrid approach here might be thought of as "pragmatic optimism," which attempts to rid the optimist paradigm of its kookier, pollyannish thinking while also taking into account some of the very legitimate concerns raised by the pessimists, but rejecting its caustic, neo-Luddite fringe elements and stasis mentality in the process.

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75 Carr, *supra* note 36, at 167.

76 Helprin, *supra* note 30, at 100.

77 *Id.* at 9, 100.

78 Lanier, *supra* note 37, at 1.

79 Helprin, *supra* note 30, at 144.

80 Keen, *supra* note 30, at 80.

Thoughts on the Pessimists

First and foremost, if they hope to be taken more seriously, Net skeptics need better spokespersons. Or, they at least need a more moderated, less hysterical tone when addressing valid concerns raised by technological progress. It's often difficult to take the pessimists seriously when they exude outright hostility to most forms of technological progress. Most of them deny being high-tech troglodytes, but the tone of some of their writing, and the thrust of some of their recommendations, exhibit occasional Luddite tendencies—even if they don't always come out and call for extreme measures to counteract dynamism.

Moreover, the name-calling they sometimes engage in, and their derision for the digital generation can be just as insulting and immature as the online "mob" they repeatedly castigate in their works. Too often, their criticism devolves into philosophical snobbery and blatant elitism, as in the works of Helprin, Siegel, and Keen. Constantly looking down their noses at digital natives and all "amateur" production isn't going to help them win any converts or respect for their positions. Moreover, one wonders if they have fingered the right culprit for civilization's supposed decline, since most of the ills they identify predate the rise of the Internet.

The pessimists are often too quick to proclaim the decline of modern civilization by looking only to the baser elements of the blogosphere or the more caustic voices of cyberspace. The Internet is a cultural and intellectual bazaar where one can find both the best and the worst of humanity on display at any given moment. True, "brutishness and barbarism," as Helprin calls it,[81] can be found on many cyber-corners, but not *all* of its corners. And, contrary to Helprin's assertion that blogging "begins the mad race to the bottom,"[82] one could just as easily cite countless instances of the healthy, unprecedented conversations that blogs have enabled about a diverse array of topics.

Their claim that the "Daily Me" and information specialization will lead to a variety of ills is also somewhat overblown. It's particularly hard to accept Sunstein and Carr's claims that increased personalization is breeding "extremism," "fanaticism" and "radicalization." A recent study by Matthew Gentzkow and Jesse M. Shapiro of the University of Chicago Booth School of Business lent credibility to this, finding "no evidence that the Internet is becoming more segregated over time" or leading to increased polarization as Sunstein and other pessimists fear.[83] Instead, their findings show that the Net

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81 Helprin, *supra* note 30, at 32.

82 *Id.* at 42.

83 Matthew Gentzkow & Jesse M. Shapiro, *Ideological Segregation Online and Offline*, CHICAGO BOOTH WORKING PAPER No. 10-19, April 5, 2010, **http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1588920**.

has encouraged more ideological integration and is actually driving us to experience new, unanticipated viewpoints.[84]

While it's true the Internet has given some extremists a new soapbox to stand on and spew their hatred and stupidity, the fact is that such voices and viewpoints have always existed. The difference today is that the Internet and digital platforms have given us a platform to counter such societal extremism. As the old saying goes, the answer to bad speech is more speech—not a crackdown on the underlying technologies used to convey speech. It should not be forgotten that, throughout history, most extremist, totalitarian movements rose to power by taking over the scarce, centralized media platforms that existed in their countries. The decentralization of media makes such a take-over far less plausible to imagine.

Sometimes the pessimists seem to just be suffering from a bit of old-fogeyism. Lanier, for example, dismisses most modern culture as "retro" and "a petty mashup of preweb culture."[85] "It's as if culture froze just before it became digitally open, and all we can do now is mine the past like salvagers picking over a garbage dump."[86] Many pessimists are guilty of such hyper-nostalgia about those mythical "good 'ol days" when all was supposedly much better. It's a common refrain we've heard from many social and cultural critics before. But such cultural critiques are profoundly subjective. Many pessimists simply seem to be well passed the "adventure window."[87] The willingness of humans to try new things and experiment with new forms of culture—our "adventure window"—fades rapidly after certain key points in life, as we gradually settle in our ways. Many cultural critics and average folk alike seem convinced the best days are behind us and the current good-for-nothing generation and their new-fangled gadgets and culture are garbage. At times this devolves into a full-blown moral panic.[88] "It's perfectly normal and probably healthy to examine whether these changes are good or bad," says *New York Times* blogger Nick Bilton, author of *I Live in the Future & Here's How It Works*. "But we'll also no doubt

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84 "This study suggests that Internet users are a bunch of ideological Jack Kerouacs. They're not burrowing down into comforting nests. They're cruising far and wide looking for adventure, information, combat and arousal." David Brooks, *Riders on the Storm*, NEW YORK TIMES, April 19, 2010, **http://www.nytimes.com/2010/04/20/opinion/20brooks.html**.

85 Lanier, *supra* note 37, at 131.

86 *Id.* at 133.

87 Adam Thierer, *The "Adventure Window," Radio Formats and Media Ownership Rules*, TECHNOLOGY LIBERATION FRONT, Aug. 16, 2006, **http://techliberation.com/2006/08/16/the-adventure-window-radio-formats-and-media-ownership-rules**.

88 *See* Adam Thierer, *Parents, Kids & Policymakers in the Digital Age: Safeguarding Against 'Techno-Panics,'* INSIDE ALEC (July 2009) at 16-7, **http://www.alec.org/am/pdf/Inside_July09.pdf**.

look back at many of the debates a generation from now and see that a lot of these fears were inflated and maybe a bit ridiculous, too."[89]

The "sharecropper" concern raised by Carr and Lanier is also over-stated. This logic ignores the non-monetary benefits that many of us feel we extract from today's online business models and social production processes. Most of us feel we get a lot back as part of this new value exchange. Carr and Lanier are certainly correct that Google, Facebook, MySpace, and a lot of other Net middlemen are getting big and rich based on all the user-generated content flowing across their sites and systems. On the other hand, most cyber-citizens extract enormous benefits from the existence of those (mostly free and constantly improving) platforms and services. It's a very different sort of value exchange and business model than in the past, but we are adjusting to it.

Yet for all of Wikipedia's value as a reference of first (but certainly not final) resort, the pessimists have almost nothing good to say about it. Much the same goes for open source and other collaborative efforts. They don't appear willing to accept the possibility of any benefits coming from collective efforts. And they wrongly treat the rise of collective / collaborative efforts as a zero-sum game; imagining it represents a net loss of individual effort & "personhood." That simply doesn't follow. The masses have been given more of a voice thanks to the rise of Web 2.0 collaborative technologies and platforms, but that doesn't mean that media "professionals" don't still exist. Most bloggers, for example, build their narratives around facts and stories found in respected "mainstream media" outlets. It's true that those outlets must now compete in a broad sense with many new forms of competition for human attention, but it doesn't mean they still won't play a lead role in the new information ecosystem.

Most of all, the pessimists can and must come to terms with the Information Revolution while offering more constructive *and practical* solutions to legitimately difficult transitional problems created by disintermediating influences of the digital technologies and Net. After all, practically speaking, what would the pessimists have us do if we can't mitigate the problems they identify? "Whatever the mix of good and bad," Notes *Wall Street Journal* columnist Gordon Crovitz, "technology only advances and cannot be put back in the bottle."[90] Would the pessimists have us attempt to put the digital genie back in bottle with burdensome restrictions on technology or the creation of a permissions-based system of innovation? "[W]hether it's good for society or

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89 NICK BILTON, I LIVE IN THE FUTURE & HERE'S HOW IT WORKS 63 (2010).

90 L. Gordon Crovitz, *Is Technology Good or Bad? Yes.* WALL STREET JOURNAL, Aug. 23, 2010, **http://online.wsj.com/article/SB10001424052748703579804575441461191438330.html**.

bad … is somewhat irrelevant at this point," argues Nick Bilton.[91] "There's no turning back the clock." Similarly, Ben Casnocha has correctly noted that:

> the wind at the backs of *all* techno-optimists … [is] the forward momentum of technological development. You cannot turn back the clock. It is impossible to envision a future where there is *less* information and fewer people on social networks. It is very possible to envision increasing abundance along with better filters to manage it. The most constructive contributions to the debate, then, heed Moore's Law in the broadest sense and offer specific suggestions for how to harness the change for the better.[92]

Regrettably, most of the leading Net pessimists have failed to do this in their work. However, good templates for how to accomplish this can be found in recent books by William Powers (*Hamlet's BlackBerry: A Practical Philosophy for Building a Good Life in the Digital Age*)[93] and John Freeman (*The Tyranny of E-Mail: The Four-Thousand-Year Journey to Your Inbox*).[94] These authors, although somewhat pessimistic in their view of technology's impact on life and learning, offer outstanding self-help tips and plans of action about how to reasonably assimilate new information technologies into our lives. Their key insight: the Internet and digital technologies aren't going away, so we must figure out how to deal with them in a responsible manner—both individually and collectively. It's essential other pessimists come to grips with that fact.

The pessimists are at their best when highlighting the very legitimate concerns about the challenges that accompany technological change, including the impact of the digital revolution on "professional" media, the decline of authority

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91 Bilton, *supra* note 89, at 216.

92 Ben Casnocha, *RSSted Development*, THE AMERICAN, July 1, 2009, **http://www.american.com/archive/2009/june/rssted-development**. Clay Shirky has also noted that "There is never going to be a moment when we as a society ask ourselves, 'Do we want this? Do we want the changes that the new flood of production and access and spread of information is going to bring about?'" Clay Shirky, HERE COMES EVERYBODY: THE POWER OF ORGANIZING WITHOUT ORGANIZATIONS 73 (2008).

93 WILLIAM POWERS, HAMLET'S BLACKBERRY: A PRACTICAL PHILOSOPHY FOR BUILDING A GOOD LIFE IN THE DIGITAL AGE (2010). *See also* Adam Thierer, *Coping with Information Overload: Thoughts on* Hamlet's BlackBerry *by William Powers*, TECHNOLOGY LIBERATION FRONT, Sept. 6, 2010, **http://techliberation.com/2010/09/06/coping-with-information-overload-thoughts-on-hamlets-blackberry-by-william-powers**.

94 JOHN FREEMAN, THE TYRANNY OF E-MAIL: THE FOUR-THOUSAND-YEAR JOURNEY TO YOUR INBOX (2009). For a review of the book, *see* Adam Thierer, *Can Humans Cope with Information Overload? Tyler Cowen & John Freeman Join the Debate,* TECHNOLOGY LIBERATION FRONT, Aug. 23, 2009, **http://techliberation.com/2009/08/23/can-humans-cope-with-information-overload-tyler-cowen-john-freeman-join-the-debate**.

among trusted experts and intermediaries, and the challenge of finding creative ways to fund "professional" media and art going forward.

Thoughts on the Optimists

Again, the optimists currently have the better of this debate: Web 2.0 is generally benefiting culture and society. It is almost impossible to accept that society has not benefited from the Internet and new digital technologies compared to the past era of information scarcity. The Digital Revolution has greatly empowered the masses and offered them more informational inputs.

But the optimists need to be less pollyannaish and avoid becoming the "technopolists" (or digital utopians) that Postman feared were taking over our society. There's often too much Rousseauian romanticism at work in some optimist writings. Just as the pessimists are often guilty assuming the Net and digital technologies are responsible for far too many ills, the optimists occasionally do the opposite by engaging in what Nick Carr labels "the Internet's liberation mythology." The Internet isn't remaking man or changing human nature in any fundamental way. Nor can it liberate us from all earthly constraints or magically solve all of civilization's problems. Moreover, when it comes to economics, all this talk about the Long Tail being "the future of business" (Chris Anderson) and of "Wikinomics … changing everything through mass collaboration," (Tapscott and Williams) verges on irrational techno-exuberance.

In particular, optimists often overplay the benefits of collective intelligence, collaboration, and the role of amateur production. They are occasionally guilty of "the elevation of information to metaphysical status" as Postman lamented.[95] For example, the optimists could frame "Wiki" and peer-production models as a *complement* to professional media, not a *replacement* for it. Could the equivalent of *The New York Times* really be cobbled together by amateurs daily? It seems highly unlikely. And why aren't there any compelling open source video games? Similarly, free and open source software (FOSS) has produced enormous social / economic benefits, but it would be foolish to believe that FOSS (or "wiki" models) will replace *all* proprietary business models. Each model or mode of production has its place and purpose and they will continue to co-exist and compete.

We wouldn't necessarily be better off if all the "professional" media producers and old intermediaries disappeared, even if it is no doubt true that many of them will. Some optimists play the "old media just doesn't get it" card far too often and snobbishly dismiss many producers' valid concerns and efforts to reinvent themselves.

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95 Postman, *supra* note 8, at 61.

There's also a big difference between "remix culture" and "rip-off culture." Many optimists turn a blind eye to blatant copyright piracy, for example, or even defend it as either a positive development or simply inevitable. Remix culture generally enhances and extends culture and creativity. But blatant content piracy deprives many of society's most gifted creators of the incentive to produce culturally beneficial works. Likewise, hacking, circumvention, and reverse-engineering all play an important and legitimate role in our new digital economy, but one need not accept the legitimacy of those activities when conducted for nefarious purposes (think identity theft or chip-modding to facilitate video game piracy.)

The optimists should be cautious about predicting sweeping positive changes from the Internet or Web 2.0 technologies. Consider Shirky's generally upbeat assessment of the impact of "cognitive surplus." There's a lot of fluffy talk and anecdotal examples in Shirky's book about how the cognitive surplus spawned by cyber-life has affected politics, advocacy, and "generosity," but I think it's a stretch to imply that the Net is going to upend political systems. In another essay in this collection, Evgeny Morozov challenges Shirky on some of these points, arguing that "the Internet will not automatically preserve—never mind improve—the health of democratic politics."[96] He's right. That digital technology and the Internet will help reshape society and politics to some degree is indisputable. But that doesn't mean the Net will radically reshape political systems or human nature anytime soon.

Finally, the optimists would be wise to separate themselves from those extreme voices in their community who speak of the "noosphere" and "global consciousness" and long for the eventual singularity. While he doesn't go quite so far, *Wired* editor Kevin Kelly often pushes techno-optimism to its extreme. In his latest book, *What Technology Wants*, Kelly speaks of what he calls "the technium" as a "force" or even a living organism that has a "vital spirit" and which "has its own wants" and "a noticeable measure of autonomy."[97] Treating technology as an autonomous force is silly, even dangerous, thinking. It is to imbue it with attributes and feelings that simply do not exist and would probably not be desirable if they did. Yet, some optimists speak in fatalistic terms and make such an outcome seem desirable. They sound like they long for life in *The Matrix*—"Bring on sentient robot masters and the Singularity!" Thus does an optimist cross over into the realm of quixotic techno-utopianism.

Optimists need to place technological progress in context and appreciate that, as Postman argued, there *are* some moral dimensions to technological progress that deserve attention. Not all change is good change. The optimists need to be

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96 Evgeny Morozov, *Will the Net Liberate the World?*, infra at 443.

97 KEVIN KELLY, WHAT TECHNOLOGY WANTS 198, 41, 15, 13 (2010).

mature enough to understand and address the downsides of digital life without dismissing its critics. On the other hand, some of those moral consequences are profoundly *positive*, which the pessimists usually fail to appreciate or even acknowledge.

Conclusion: Toward "Pragmatic Optimism"

Again, I believe the optimists currently have the better of this debate. It's impossible for me to believe we were better off in an era of information poverty and un-empowered masses. I'll take information overload over information poverty any day! As Dennis Baron puts it: "The Internet is a true electronic frontier where everyone is on his or her own: all manuscripts are accepted for publication, they remain in virtual print forever, and no one can tell writers what to do."[98]

The rise of the Internet and digital technologies has empowered the masses and given everyone a soapbox on which to speak to the world. Of course, that doesn't necessarily mean all of them will have something interesting to say! We shouldn't exalt user-generated content as a good in and of itself. It's quality, not volume, that counts. But such human empowerment is worth celebrating, despite its occasional downsides.[99] Abundance is better than the old analog world of few choices and fewer voices.

However, the pessimists have some very legitimate concerns regarding how the passing of the old order might leave society without some important things. For example, one need not endorse bailouts for a dying newspaper industry to nonetheless worry about the important public service provided by investigative journalists: Who will take up those efforts if large media institutions go under because of digital disintermediation?

The skeptics are also certainly correct that each of us should think about how to better balance new technologies and assimilate them into our lives and the lives of our families and communities. For example, children need to learn new "digital literacy" and "cyber-citizenship" skills to be savvy Netizens.

To be clear, I am *not* suggesting that these questions should be answered by government. There exist many other ways that society can work to preserve

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98 DENNIS BARON, A BETTER PENCIL 25 (2009).

99 "Just as well-meaning scientists and consumers feared that trains and comic books and television would rot our brains and spoil our minds, I believe many of the skeptics and worrywarts today are missing the bigger picture, the greater value that access to new and faster information is bringing us." Nick Bilton, I LIVE IN THE FUTURE & HERE'S HOW IT WORKS 136 (2010).

important values and institutions without embracing the stasis mentality and using coercion to accomplish that which should be pursued voluntarily.

As noted, the nostalgia the pessimists typically espouse for the past is a common refrain of cultural and technological critics who fear our best days are behind us. The truth typically proves less cataclysmic, of course. The great thing about humans is that we adapt better than other creatures. When it comes to technological change, resiliency is hard-wired into our genes. "The techno-apocalypse never comes," notes *Slate's* Jack Shafer, because "cultures tend to assimilate and normalize new technology in ways the fretful never anticipate."[100] We learn how to use the new tools given to us and make them part of our lives and culture. Indeed, we have lived through revolutions more radical than the Information Revolution. We *can* adapt and learn to live with some of the legitimate difficulties and downsides of the Information Age.

Generally speaking, the sensible middle ground position is "pragmatic optimism": We should embrace the amazing technological changes at work in today's Information Age but with a healthy dose of humility and appreciation for the disruptive impact and pace of that change. We need to think about how to mitigate the negative impacts associated with technological change without adopting the paranoid tone or Luddite-ish recommendations of the pessimists.

I'm particularly persuaded by the skeptics' call for all of us to exercise some restraint in terms of the role technology plays in our own lives. While pessimists from Plato and Postman certainly went too far at times, there is more than just a kernel of truth to their claim that, taken to an extreme, technology can have a deleterious impact on life and learning. We need to focus on the Aristotelian mean. We must avoid neo-Luddite calls for a return to "the good 'ol days" on the one hand, while also rejecting techno-utopian Pollyannaism on the other. We need not go to "all or nothing" extremes.

In the end, however, I return to the importance of evolutionary dynamism and the importance of leaving a broad sphere for continued experimentation by individuals and organizations alike. Freedom *broadly construed* is valuable in its own right—even if not all of the outcomes are optimal. As Clay Shirky rightly notes:

> This does not mean there will be no difficulties associated with our new capabilities—the defenders of freedom have long noted that free societies have problems peculiar to them. Instead, it assumes that the value of freedom outweighs the

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[100] Jack Shafer, *Digital Native Calms the Anxious Masses*, SLATE, Sept. 13, 2010, **http://www.slate.com/id/2267161**.

> problems, not based on calculation of net value but because freedom is the right thing to want for society.[101]

Finally, we cannot ignore the practical difficulties of halting or even slowing progress—assuming we somehow collectively decided we wanted to do so. Turning back the clock seems almost unfathomable at this point absent extreme measures that would sacrifice so many of the benefits the Information Age has brought us—not to mention the curtailment of freedom that it would demand.

Regardless, the old Theuth-Thamus debate about the impact of technological change on culture and society will continue to rage. There is no chance this debate will die down anytime soon. (Just wait till new technologies like virtual reality go mainstream!) Despite real challenges in adapting to technological change, I remain generally optimistic about the prospects for technology to improve the human condition.

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101 Shirky, *supra* note 59, at 298.