

SEEKING CONVERGENCE IN
POLICY AND PRACTICE

COMMUNICATIONS IN THE PUBLIC INTEREST
VOLUME 2

EDITED BY
MARITA MOLL AND
LESLIE REGAN SHADE



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PREFACE

This collection of essays on current communications issues was prepared in response to positive feedback from readers of the first volume of *Communications in the Public Interest, E-Commerce vs. E-Commons*. Entitled *Seeking Convergence in Policy and Practice*, Volume 2 brings together some of the best and brightest academics and community practitioners writing about and working on critical aspects of information and communication technologies (ICTs) in Canada today.

In the first volume, published in 2001, (much of which is available on-line at www.policyalternatives.ca/ICTpolicy), we were anxious to highlight the role of activist groups in championing a public interest perspective on the development of ICTs. Volume 1 described the tension between what we characterized as the e-commerce versus e-commons vision: the marketplace model versus the public sphere model. How Canadians were conceptualized within ICT discourse and policy – as either citizens or consumers – was explored via chapters on community networking, public library access, Internet use by anti-poverty voluntary organizations, and ICT in development. Policy issues from a public interest perspective – privacy, intellectual property, and labour, and uses within unions and schools – were also highlighted.

In the three years since the publication of the first volume, the rhetoric has changed: we've gone from information highways to smart communities, from the knowledge-based economy to the new economy. Figures indicate that more people in Canada are now online, although a persistent digital divide exists which hinges on socio-economics and choice, what Internet researcher Andy Reddick¹ terms the dual digital divide – those who can't get connected for social and/or economic reasons and those who choose not to be connected. Technologies have been more widely deployed, including broadband, Wifi (wireless) and mobile texting.

Commodification, privatization, and capitalization of communication and culture have been increasing. Tensions have exacerbated in culture and trade debates through trade agreements and negotiations that privilege the prosperous over the populace, that treat citizens as consumers, and that favor consultation through elite summits of the pay-per invited, while the uninvited, whose lives and livelihoods are being affected by the conversation inside the stately rooms, are left outside the doors, protesting in the streets.

And while the economy is recoiling, many communities are recuperating from the dot.com exuberance of the late 1990s. We've seen more heightened security concerns, post 9-11, with draconian and anti-democratic legislation proposed, raising the spectre of a surveillance society on steroids. "Whose information society?" is a question that hangs suspended in the dust of the twin towers tragedy.

Public interests have been pitted against market interests; the technological imperatives of ICT development and use have clashed with wider social justice issues and community uses that take into consideration a capabilities approach. Social movements whose goals include the right to communicate in a pluralistic society have been accelerating. We've seen a rise in digital activism – the use of the Internet to support on-the-ground activism for real-time events, such as the "Battle in Seattle" (1999) and the Free Trade of the Americas Summit in Quebec City in April 2001. This was also forcefully demonstrated with peace mobilization in the lead-up and during the Bush and Blair administration's invasion of Iraq.

Since the publication of Volume 1, Canadian government initiatives coalesced around the National Broadband Task Force, which recommended the deployment of a national broadband network at a cost of between \$1.85 billion to \$4.5 billion (Cdn). Emphasis was made on connecting rural and remote communities and aboriginal settlements, with priority given to providing service to health facilities, libraries, schools, and other public institutions. Although this was never implemented, BRAND – Broadband for Rural and Remote Development – has been kick-started as a pilot program with competitive rounds of funding for communities (see www.broadband.gc.ca). As well, the Connecting Canadians agenda continued, with a wide range of projects, from smart communities, Volnet and SchoolNet to developing digital content, Government On-line, and the international NetCorps program (see www.connect.gc.ca). However, despite millions of dollars dedicated to these programs, few evaluative tools – if any – have been developed, and issues of sustainability are vexatious. In March 2004, as part of a move to reorganize government around a “social economy” agenda, some of these programs were disbanded, others were substantially downsized.²

These changes have occurred amidst a climate of heightened media concentration in Canada. For many Canadians, this issue reached a peak when CanWest Global, owners of 11 English-language major metropolitan daily newspapers, instituted a national editorial policy and journalists in many newspapers across the country found their jobs in jeopardy for not adhering to Winnipeg headquarters corporate policy. These debates have animated the Canadian public, which has expressed, in polls and public forums, a dissatisfaction with the current levels of media concentration, and a concomitant call for widespread public debate on media concentration and convergence, including suggestions for a government inquiry into media cross-ownership. The June 2003 report of the Canadian Heritage Standing Committee even recommended “the creation of a department of communications, responsible for the Government of Canada’s support for broadcasting, telecommunications, and cultural industries.”³ They should have called it re-creation. If it made sense in the past, why not now?

Many of the issues explored in the first volume of *Communications in the Public Interest*, *E-Commerce vs. E-Commons*, are still with us, in new and more convoluted forms. As Mosco reminds us, we need to look at the current discourse about the Internet in light of historical accounts of the introduction of other communication technologies, and question the continued myth of progress through technological means. Several themes emerge: the need to engage citizens in meaningful public policy consultation; the politics over public-private partnerships that ostensibly foster cooperative ventures; vigilance about privacy protection in the packaging of information via ICTs; the importance of design as an access issue; a more heightened and holistic definition of the various digital divides; support for local content and communities; and the precarious impact of multilateral trade agreements on communication and culture in Canada.

We are again reminded of the continued lack of meaningful public consultation over the design, development, and deployment of ICTs; what Barney here characterizes as a “democratic deficit,” aptly illustrated by his analyses of Industry Canada initiatives, the latest being the National Broadband Task Force. Longford, in his chapter on e-government initiatives, also adds to this argument through examples of online consultations with “stakeholder” groups, questioning their vaunted democratic nature. Disenfranchisement and disempowerment result, rather than empowerment and autonomy. Moll and Shade examine the World Summit on the Information Society (WSIS) and the lack of both a coherent and consistent public consultation within Canada, and question whether civil society voices will be accounted for in the official summitry.

The politics over public-private partnerships is described by Kachur in his account of the commercialization of Canadian universities, which has created a new regime of intellectual property rights that favour commercial over public interests. Taxpayer money poured into research and development for the eventual commercialization of digital educational tools, with dubious and unevaluated value for actual learners, is described by Gutstein.

Going from a more static sense of the digital divide as one involving merely technological barriers to that of digital divides, with attention paid to the social infrastructure, is addressed by many; Luke advocates design for people with differing cognitive and physical attributes, Gurstein champions effective use by local individuals and communities, and Beaton et al. illustrate how First Nation content can be imaginatively deployed digitally.

Community and civil society appropriation of ICTs is explored in several of the chapters. Scatamburlo-D'Annibale and Chehade look at the popularity of Indymedia, with its philosophy of open publishing; Crow and Longford argue for the importance of open source software by community organizations; while Surman provides case studies of civil society portal trends and best practices.

How design and actual use of ICTs by citizens can and should influence policy is the subject of other chapters. These include critical perspectives on Canadian government programs specific to e-government initiatives (Longford) as well as the "Common Look and Feel" policy and the Canada Site (Luke). Balka argues for privacy protection in the emerging health infrastructure, citing B.C.'s PharmaNet, a comprehensive drug monitoring network as an example. Clement et al., in their ethnographic description of users in an urban community access site, also consider how users conceptualize privacy, arguing that there needs to be more education and awareness of the relevant privacy legislation and rights. CRTC decisions that favour corporate interests over the public interest are described by Bodnar in his chapter about municipal telecommunications development.

Finally, Babe emphasizes the importance of supporting an ecological perspective about digital technology so that issues of sustainability and the common good can remain values at the forefront of our uses and policies.

All of the authors in *Seeking Convergence in Policy and Practice* point to the importance of examining current ICT projects and policies through the lens of political economy, here concerned with the relationship of ICTs to broader social relations. Critical perspectives surrounding program and policy design and implementation, the role

of ICTs within Canadian society, and their use by community and social justice groups are all topics needing more research. The importance of public accountability is crucial, as is a broader debate on how and which features of ICTs can be considered public goods.

We hope that this volume will spark considerable debate and discussion about the nature of the public interest in ICTs, and energize research and new projects about and with ICTs. Our thanks go again to not only the authors for responding to our continual pestering, but to the Canadian Centre for Policy Alternatives, especially Bruce Campbell and Kerri-Anne Finn, for their continued support.

Some of the articles in this collection will be available electronically at www.policyalternatives.ca.

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Endnotes

- 1 Reddick, Andrew, Christian Boucher, and Manon Groseilliers. (2001). *Rethinking the Information Highway: Rethinking the Dual Digital Divide*. Ottawa: Human Resources Development Canada. [http://olt-bta.hrdc-drhc.gc.ca/resources/information_highway\(2001\)_e.pdf](http://olt-bta.hrdc-drhc.gc.ca/resources/information_highway(2001)_e.pdf)
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INTRODUCTION









From Here to Banality: Myths About New Media and Communication Policy

Vincent Mosco



This chapter addresses three themes: technologies travel a road from the sublime to the banal, from the transcendent mythical spectacle that Edmund Burke wrote about 250 years ago to what he called the “stale, unaffecting familiarity” of the banal.¹ Second, cyberspace enacts its own mythologies, and these are intimately connected to wider myths about the end of history, the end of geography, and the end of politics. Third, myths, understood not just as false statements but as living transcendent stories that help us to cope with life’s contradictions, matter a great deal and have their consequences for communication policy, propelling beliefs about the “magic of the market” on the one hand and, on the other, the myth that “if you build it, they will come.”

I will begin at the end with a quote: “The world was ending then, it’s ending still, and I’m happy to belong to it again.”

The author of this line, noted writer and essayist Jonathan Franzen, calls his 2002 book of essays *How to be Alone*.² He’s not. A check of books published between 1998 and October 2002 and received by the Harvard University Library reveal that we are at the end of agriculture, the American century, anathemas, the art world, the Asian miracle, the Asian model, authoritarian regimes, the beginning, baseball, books, boxing, business as usual, capitalism, certainty, change, cinema, class

politics, class war, the Cold War, crime, development, empire (five), economic democracy, economic man, ethnography, Eurasia, evil, fashion, finance, foreign policy, gay, globalization, the growth paradigm, history (four), homework, human rights, ideology, illiteracy, imagination, an illusion, innocence (two), innovation in architecture, internationalism, kings, law (two), man, masculinity, marriage, marketing, the Microsoft era, modern medicine, the modern world, Modernism, money, natural evolution, nature (two), nomadism, North Korea, the oil era, the past, patience, the peace process, philosophy, the poem, political exceptionalism, politics, print, privacy (two), race, the revolution, secrecy, shareholder value, the standard job and family, the story, style culture, sweatshops, theology, time (six), tolerance, torture, utopia, welfare (two), welfare rights, the welfare state, and, last but not least, the world (eight).

Certainly the spirit of the millennium has inspired much of this outpouring of work on “the end of” theme. But there is more to it than just reaching a new mark on arguably the world’s most important calendar. Among other things, it signals a general willingness to entertain the prospect of a fundamental turning point in society and culture.

Almost every wave of new technology, including information and communication media, has brought with it declarations of the end. They represent what Armand Mattelart³ has called “the ideology of redemption through networks.” Since these tend to take place with no reference to similar proclamations in the previous wave, one cannot help but conclude that the rhetoric of technology, the technological sublime that David Nye⁴ so perceptively identifies, is powerful enough to create a widespread historical amnesia.

One of the more useful ways to critically assess technological myths, including myths of cyberspace, is to excavate some of the similar tales that accompanied the rise of earlier “history-ending” technologies. This chapter draws from the telegraph, electrification, the telephone, radio, and television. These are not the only possible examples; motion pictures could be included as well. But they serve as good ways of demonstrating that there is indeed a remarkable, almost willful,

historical amnesia about technology, particularly when the talk turns to communication and information technology.

One of the reasons why variations on “the end of” myths are so popular is because we collectively forget the myths that surround the history of technology. Cyberspace gurus encourage us to think that we have reached the end of history, the end of geography and the end of politics. Everything has changed. So we can apply the mute button to whatever has come before. After all, history has nothing to say to us because it knows nothing of cyberspace. But quite to the contrary, history is filled with myth-making about technology and has more to say than ever before about how we invent myths whenever we invent technology. We want to believe that our era is unique in transforming the world as we have known it. The end is preferred to more of the same; the transcendent to the routine; the sublime to the banal. So we not only view our age as revolutionary. We forget that others looked at earlier technologies in the same way.

History was also over back in December 1868 when a room full of banquet guests enjoying the feast at Delmonico’s restaurant in New York raised their glasses to Samuel F.B. Morse whose new invention, their toastmaster proclaimed, “annihilated both space and time in the transmission of intelligence.”⁵ Or perhaps it ended a decade earlier in 1858, when the British Ambassador rose to toast another contributor to the success of the transatlantic telegraph, Edward Thornton, whose invention the diplomat enthused over by calling the telegraph “the nerve of international life, transmitting knowledge of events, removing causes of misunderstanding, and promoting peace and harmony throughout the world.”⁶ One magazine exclaimed that “our whole human existence is being transformed,” and another envisioned telegraphy creating its own land, not cyberspace but “ghostland.” And according to another, “Wars are to cease; the kingdom of peace will be set up.”⁷ And if not the kingdom of peace, then the kingdom of god. An early prophet of transoceanic telegraphic communication, Alonzo Jackman, offered a vision of the salvation of the world through instantaneous long-distance communication in a “new era” of evangelism

and proclaimed: "Heathenism would be entombed, and the whole Earth would be illuminated with the glorious light of Christianity."⁸

The telegraph was the first in a series of history-ending technologies that continue today. Before considering other such precursors of cyberspace, such as the telephone, radio and television, it is useful to reflect on how, shortly after the telegraph made its triumphant entrance, the technology that powered it and subsequent history-ending media, electricity, burst into spectacle. Here is how one turn-of-the-century magazine described its magical power: "Look from a distance at night, upon the broad space it fills, and the majestic sweep of the searching lights, and it is as if the Earth and sky were transformed by the immeasurable wands of colossal magicians and the superb dome of the structure that is the central jewel of the display is glowing as if bound with wreaths of stars. It is electricity!"⁹

As the telegraph and electricity demonstrate, the new world of cyberspace is not the first to be christened with magical powers to transcend the present and institute a new order. But they also demonstrate that transcendence is not easy to sustain. Just as the telegraph faded into the woodwork of routine commerce, electricity lost its allure, as Nye notes: "Electrical novelties faded quickly and became "natural." In 1880, one arc light in a store window drew a crowd; in 1885 a lighted mansion still impressed the multitude; in the 1890s came the first electric signs. Each in turn became normal and hardly worth a glance."¹⁰

The routinization of electricity's mythic and magical power did nothing to diminish its physical might. Indeed, it drew its greatest material strength when it became routinized into banality and literally withdrew into the woodwork. The allure of electricity, like that of the telegraph, moved on to newer technologies. Its magic remained only in those places yet to receive it. As this poor Tennessee farmer pronounced at a 1940s church meeting, "Brothers and sisters, I want to tell you this," he said. "The greatest thing on Earth is to have the love of God in your heart, and the next greatest is to have electricity in your home."¹¹

If the telegraph's lighting wires made up the Victorian Internet, then the telephone's pairs of twisted copper made it the Internet of

the Gilded Age and the Roaring Twenties. Martin has described how early promotion of the telephone described the characteristics of “a new social order” that the telephone would bring about. It would be both a “business saviour” by permitting distant shopping and a liberator of “women slaves” since telephone shopping would lighten the load of homemakers. It would guard against “nervous strain,” provide “safety for your family,” reduce “household fatigue,” and make writing an anachronism. In short, it was the device that could “save the nation” and so the decision to purchase a phone was considered more than a voluntary consumer choice, but “a moral obligation for a considerate husband and a good citizen.”¹² Marvin echoes this view, noting that “perhaps more than any other communications invention, contemporaries considered the telephone the bellwether of a new age.” She cites the magazine *Electrical World’s* enthusiasm for the telephone as “the voice crying in the wilderness.”¹³

The telephone became one of the central icons of modernity, the medium that marked the turn of the twentieth century, just as the computer is arguably the technology most closely associated with the arrival of the twenty-first. But it is again important to note how quickly it is that icons fade into the woodwork, or, for that matter, the desktop. Fischer documents this for the telephone in interviews with generations of early telephone users. The older interviewees, people who began to see phones in use in the 1890s, “described the telephone in tones suggesting awe,” demonstrably moved by the act of hearing a distant voice and responding to it immediately. But this did not last for long, as those who took up the phone after the turn of the century attest. Statements like “Seems like we always had a telephone” and “Telephones were no big deal. It wasn’t like you never saw a telephone” are common among those born just a few years later. For Americans, the awe and aura of the telephone disappeared after 1910. But it would reappear a short time later with the arrival of radio.¹⁴

The magic of messages transmitted through the air with no evidence of their passage was more than just the work of God, it was the medium of God’s work. In 1922, then Secretary of Commerce Herbert Hoover, a phlegmatic man ordinarily not prone to hyperbole,

remarked on the wonder of “wireless fever” which had to be “one of the most astounding things that (has) come under my observation of American life.”¹⁵ Admittedly self-interested, the president of the Radio Corporation of America, General James G. Harbord, captured the history-making and history-ending power of radio with this analogy to the invention of printing that sounds more like a prayer than an observation: “Radio broadcasting, I devoutly believe, is the greatest force yet developed by man in his march down the slopes of time. Since Gutenberg devised his crude wooden type and made printing possible, nearly five centuries ago, there has been no single invention which so closely touches human interest and human welfare as this miracle of the ages.”¹⁶

Many of the same promises made about the telegraph, electricity, and the telephone were applied to this latest “miracle of the ages.” Like the others, it would serve as a potent force for social cohesion and world peace. One can understand that the president of the General Electric Company would see radio “as a means for general and perpetual peace on Earth.” After all, GE owned RCA and had a huge stake in the development of broadcasting. One can also understand that Marconi, the widely described “father of wireless,” would see radio as “the only force to which we can look with any degree of hope for the ultimate establishment of permanent world peace.” But even those without an axe to grind weighed in with their utopian visions. The Episcopal Bishop of Washington, D.C. gave his blessing to the new medium with the exclamation that “I believe the radio will be a potent factor in making the twentieth century the age of the brotherhood of man. More and more I have come to feel that this growing feeling of brotherhood may result from the intimacy and fellowship created through the medium of the air.”¹⁷

More significantly, observers felt that radio would promote an epochal transformation in political life, the growth of direct democracy. In arguments that are strikingly like those we hear today about cyberspace, radio would allow the listening audience direct contact with those in power. The *New Republic* magazine praised radio because “It has found a way to dispense with political middle-men. In a fashion, it

has restored the demos upon which republican government is founded. No one will capture the radio vote unless he faces the microphones squarely and speaks his mind fully, candidly, and in extenso.”¹⁸

Radio will also strengthen the quality of political oratory as one commentator predicted that “There is no doubt whatever that radio broadcasting will tend to improve the quality of speeches delivered at the average political meeting.” Why? Because “personality will count for nothing as far as the radio audience is concerned. Ill-built sentences expressing weak ideas cannot succeed without the aid of forensic gesticulation. The flowery nonsense and wild rhetorical excursions of the soap box spellbinder are probably a thing of the past if a microphone is being used.”¹⁹

Furthermore, contemporary proponents of “virtual education” in cyberspace would find many of their arguments foreshadowed in radio’s early years. The first radio courses in the early 1920s prompted Radio Broadcast magazine to forecast “the advent of the ‘University of the Air’.” One enthusiast declared that “The lid of the classroom has been blown off, and the walls have been set on the circumference of the globe.” Thanks to radio, “every home has the potentiality of becoming an extension of Carnegie Hall or Harvard University.”²⁰

But it would not be long before the forces of banality would undermine the magic. Douglas sees bad omens by the end of the second decade of the twentieth century as first military and then large corporate interests began to recognize the value of the new medium and lobbied to push off the air the young amateurs, educators, and others who envisioned a utopian future for and with radio. The arrival of advertising and big business, with its interest in transforming the high-minded University of the Air into nothing more than Vaudeville on the Air led serious writers of the late 1920s to question whether radio would succeed. In 1927, the New Republic magazine, which had predicted that radio would create a new democratic age, now complained that “It turns to propaganda as easily as the aeroplane turns to bombing; it sows its seeds with a wider throw.”²¹ By 1930, the magazine could only conclude that “broadly speaking, the radio in America is going to waste.”²²

And finally, from Lee de Forest, one of radio's founding inventors, the conclusion that radio is no longer able to scale the mythic heights; for it is now just "a stench in the nostrils of the gods of the ionosphere."²³ Once very optimistic about the technology he helped to create, de Forest complained bitterly in a letter to the 1946 meeting of the National Association of Broadcasting. Attacking the proponents of commercial radio, he demands to know: "What have you done with my child? You have sent him out in the streets in rags of ragtime, tatters of jive and boogie woogie, to collect money from all and sundry for hubba hubba and audio jitterbug. You have made of him a laughing-stock to intelligence...you have cut time into tiny segments called spots (more rightly stains) wherewith the occasional fine program is periodically smeared with impudent insistence to buy and try."²⁴ But his hopes rose again with television.

As radio joined other communication technologies that promised but failed to end history, geography and politics, another powerful device, television, captured the popular imagination and attracted the hyperbole that earlier technologies lost. It is probably best to view television's promise in two stages because the hope for the medium was repeated in two forms. In essence, television's first encounter with "end-of-everything" promises began with broadcast television which spread widely, beginning in the early 1950s. Its second arrived with cable television, which inspired dreams of a "wired nation" in the late 1960s and early '70s.

The first period of television's promise viewed the medium in terms familiar to anyone who heard about how radio would realize democracy, world peace, social harmony, and the transformation of mass education. As David Sarnoff, the founder of RCA, boasted at the 1939 New York World's Fair, television would provide "a torch of hope in a troubled world."²⁵ It would do so by guaranteeing "a finer and broader understanding among all the people's of the world."²⁶ Few people's expectations rose higher (or ultimately sunk deeper) than those again of Lee De Forest, inventor of the vacuum tube essential for the development of radio and later television broadcasting. Voicing what one author calls "the expectations of the nation," in 1928 he expounded on

the medium he was helping to create by gushing over “What thrilling lectures on solar physics will such pictures permit!...What could be a more fitting theme for a weekly half-hour of television than a quiet parade through some famous art gallery, pausing a moment before each masterpiece while the gifted commentator dwells briefly upon its characteristics, explains its meaning, recounts the story of its creation, its creator?...Can we imagine a more potent means for teaching the public the art of careful driving safety upon our highways than a weekly talk by some earnest police traffic officer, illustrated with diagrams and photographs?”²⁷

Television held out a promise not experienced since the arrival of the electric light and the automobile, and all three are mythologized in Dunlap’s early work on television which declared that “The advent of the television era can be compared in importance with the arrival of the electric light that dimmed the glory of candle and kerosene lamp; with the arrival of the automobile that relieved the horse, sped up travel and introduced good roads that linked the farm with the city.”²⁸ In short, television “is the wizardry of the age.”²⁹

The enthusiasm grew with the promise of cable television. In fact, there was arguably more of a sense that cable would bring an epochal transformation in communication than television. TV held out great promise, but it was hard to argue with those who saw it as largely a video extension of radio. But cable television was something completely different because it had the potential to link every home and workplace in a fully connected system. It is no wonder that one of the period’s more popular books on the subject was called *The Wired Nation – Cable TV: The Electronic Communication Highway*. In fact, almost everything that is now ballyhooed about the Internet was already said about cable television. The information highway analogy was well worked in discussions of cable. As they do today, people differed about how to build it, but there was no mistaking the need to do so. As Smith put it in language now familiar to even the casual Web observer, “In the 1960s, the nation provided large federal subsidies for a new interstate highway system to facilitate and modernize the flow of automotive traffic in the United States. In the 1970s, it should make

a similar national commitment for an electronic highway system, to facilitate the exchange of information and ideas.”³⁰

Smith’s account is one of the more sober analyses of the new medium because it recognized the problems that such a revolutionary one might pose for established entrenched powers who would make it likely that “short-term commercial considerations will dictate the form of the network.”³¹ Nevertheless, amid the policy wonk discussion of rules and regulations, there are familiar echoes of earlier technological promise. Once again, education is prominent. For example, to make the case for the public service potential of cable television, Smith turns to the example of an early system located in Henderson, North Carolina, a town isolated from nearby cities and from broadcast television reception by its mountainous terrain. So Henderson turned to Cablevision, a private company, to put together the town’s service, including hiring a program director and a young assistant from the local high school “with an interest in radio, as a control room trainee.” In another example that evokes the accounts of amateur “Radio Boys” of the 1920s and young cyber-wizards today, Smith tells us that “He learned everything in three days!” prompting the hiring of five more students who “learned with equal speed.” The story continues with buoyant accounts of how these students and the community came together to produce meaningful local programming supported by local advertising. For Smith, “such applications are only a bare beginning of the cable’s potential.”³²

A report from a prestige think tank in Washington claimed that cable TV was just the cure for the urban riots and rebellions of the 1960s. Additional examples give new hope for community television in low-income areas, direct contact with candidates for electoral office, and a transformation in the quantity and quality of citizen communication with government officials.³³ The mythic promise of cyberspace may be many things, but it is certainly not new.

Computer communication is the latest version of what James Carey³⁴ once called “the electrical sublime,” at once both the banal infrastructure for globalization and the spectacular vision of a universal intelligence celebrated in the breezy optimism of *Wired* magazine and

the disturbing visions of people like the theologian Teilhard de Chardin, who imagined the noosphere, a literal atmosphere of thought mounting in pressure upon a globe whose linked intelligence prepares the way for an evolutionary leap. Cyberspace provides the transcendent spectacle, what Leo Marx once called “the rhetoric of the technological sublime” offering hymns to progress that rise “like froth on a tide of exuberant self-regard, sweeping over all misgivings, problems, and contradictions.”³⁵ It renews what was once promised by the telegraph, telephone, radio, and television by offering the literal connection, the missing link that will bring about the end of history, the end of geography, and the end of politics.

Cyberspace anoints the world with a near-apocalyptic quality – the end of history. Not merely the expansion of commerce beyond national boundaries, it becomes, in the work of Frances Fukuyama, Nicholas Negroponte, and Ray Kurzweil, to name just some of the leading thinkers, a radical disjunction in time, opening the way to a new epoch no longer bound by the economic, technological, or even biological limitations that characterize every historical period. For Fukuyama,³⁶ new media and liberal democracy mark the end point in an evolutionary process that has taken people through stages of development (e.g., hunting and gathering, agriculture), modes of thinking (mythic, religious, philosophic), and forms of governance (tribal, feudal, communist, fascist). For the founding director of MIT’s Media Lab, Nicholas Negroponte,³⁷ the end of history comes with the end of an analog world and the arrival of a digital one to which we must accommodate. In matter of fact prose, he offers a modern day prophet’s call to say good-bye to the world of atoms, with its coarse, confining, materiality, and welcomes the digital world, with its infinitely malleable electrons able to transcend spatial, temporal, and material constraints. The world of atoms is ending, he says. We must learn to be digital.

Ray Kurzweil brings the ballast of strong technological credentials to a best-selling book that casts the end of history in biological terms. The radical disjunction means the end of death as we know it, because we are rapidly refining the ability to preserve our intelligence in software so that “life expectancy is no longer a viable term in relation

to intelligent beings.”³⁸ For Kurzweil, one of history’s fundamental problems is that we have been dependent on the “longevity of our hardware,” that physical self which he laments through Yeats as “but a paltry thing, a tattered coat upon a stick.” History as we know it ends as we “cross the divide” and “instantiate ourselves into our computational technology.”³⁹

In addition to crossing the divide in time, cyberspace helps to cross the spatial divide, putting an end to geography as we know it. For Frances Cairncross,⁴⁰ this means the “death of distance,” as cyberspace, unlike material space, permits us to experience what it means to be anywhere at any time of our choosing. Accepting this view, Kenichi Ohmae⁴¹ celebrates a “borderless world” where any attempt to create boundaries is doomed to failure, or what William Mitchell⁴² calls an “e-topia” of near boundless choices for where and how we live and work. For him, the Net does not just extend geometry, “The Net negates geometry. [...] it is fundamentally and profoundly antispatial. The Net is ambient – nowhere in particular and everywhere at once.”⁴³ Even those like Margeret Wertheim⁴⁴ who take a less triumphalist view still see cyberspace as profoundly spatially disjunctive, exploding the singularity of the Enlightenment’s vision of one empirical space and introducing an experience dimly reminiscent of the medieval era where existential space is inherently dual – comprised then of secular and spiritual space, today of material and cyberspace.

Finally, cyberspace promises to end politics as we know it by undermining bureaucratic constraints on building networked democracies and by sweeping away age-old strategic thinking.⁴⁵ In the work of the Tofflers, George Gilder, George Keyworth and other members of the Progress and Freedom Foundation, the end of politics means more than just using computer communication to create electronic democracy. It also redefines what we traditionally called politics by grounding power in networks rather than institutions. New economic power rests in looser structures, systems with nodal points whose power derives not from their geographical supremacy but from networked interdependence and flexibility. Real-time and 24-hour networks of information flows overthrow the physical city and the nation-state

too, creating new laws by which politics must comply or be threatened with extinction. Proponents go as far as to envision a quantum politics whose indeterminacy mirrors that of the subatomic world. The end of politics also means the end of fear, particularly the age-old fear of military attack because computer communications enables a defense against it. The need for offensive weapons and strategies of mutually assured destruction disappear as ballistic missile defense systems lift a protective umbrella that shields the world. From the time that Ronald Reagan first called for such a defense, telling Gorbachev that he saw the "hand of providence" in it, to George W. Bush's latest reinvention, we hear the language of a new dawn in global security, of world peace, driven by a kind of "machina ex deo" that will transform politics as we have known it throughout history.

Cyberspace may not be bringing about the end of history, of geography, and of politics, but there is a lot to be gained from a study that includes why it is not, and why people believe that it is. And make no mistake about it. Even after what is arguably the greatest collapse in modern business history, after millions of people lost billions of dollars in the telecommunications and dot-com industries alone, people still believe. Forget the crash, forget banality, the December 2002 issue of Wired magazine offers a cover story and several feature articles on computers, science, transcendence, and religion. New media convergence may have failed but there is a "new convergence," the issue announces as its title – but this is between technology and religion. The highlight is a feature by its irrepressible editor-at-large, Kevin Kelly, who announces in the title that "God is the Machine," and if you happened to wonder which machine, he concludes that "the universe is not merely like a computer – it is a computer."

Myths matter. They matter for how we think about technology and for how we act upon it. Nowhere is this more evident than in the past five years when myths propelled a mania in stock markets and especially in the telecommunications and dot-com industries. But some of this was driven by the incorporation of cyberspace myths into communication policy, and I would like to describe two of these. The first, which certainly got the upper hand, was the myth of the market.

Bill Gates promised in his book *The Road Ahead* that computer communication would lead to a friction-free capitalism, the triumph of Adam Smith's vision of a free marketplace, and consequently the end of the need for government regulation.

Consider this fascinating column for *Wired*, in which Negroponte demonstrates the value of myth, the importance of proselytizing, and the power of myth to provide the gloss for a political agenda. The piece is meant to be a letter to then Speaker of the House Newt Gingrich, with the explicit purpose of digitizing the Library of Congress, which he refers to disparagingly as now just "a giant dumpster full of atoms":

"Dear Newt,

Your support of the digital age is deeply appreciated. As we move from a world of atoms to one of bits, we need leaders like you explaining that this revolution is a big one, maybe a 10.5 on the Richter scale of social change. Alvin and Heidi Toffler are dandy advisers; good for you for listening to them! The global information infrastructure needs a great deal of bipartisan cooperation, if only to help [read: force] other nations to deregulate and privatize their telecommunications. As you reach out across the world to evangelize the information age, people will listen."⁴⁶

This is a very interesting piece, for several reasons. Like a religious prayer, it begins by summoning the unquestionable mantra – the movement to the new age, from a world of atoms to a world of bits. The letter also invokes fellow prophets, the Tofflers, whose work, particularly Alvin's, is full of mythic tales of explosive transformations, tidal waves of change, and wonderful new worlds to come, provided we can endure the shock of change. Negroponte ends the paragraph by making common cause with Speaker Gingrich, commending him for his evangelistic work to advance the cause of what amounts to the true faith, promoting the new religion of cyberspace. But what may be the most interesting sentence of all precedes this, as Negroponte calls on Gingrich to build a bipartisan effort to advance the cause of ridding the world of the twin evils of regulation and public control of telecommunications, which appear like the two-headed monsters of

myth, standing in the way of our hero's quest for the promised land. It is tempting to stop and dwell on the irony of Negroponte's crude effort to demonstrate his affinity for "realpolitik" [read: force]. After all, forcing the world to accept policies is an odd way to promote technologies of freedom. But this is beside the point. Myth does not know irony. Rather, the presence of contradictions, forcing the world to accept the new world of freedom, only strengthens the myth, making it more righteous because it is certain of itself even in the face of apparent anomalies. Myth treats these as distractions to be avoided if we are to succeed in the mission. Academic analysts may quibble over them, but evangelists know better. The end of history, the promised land of cyberspace, the arrival of the digital world, all justify whatever it takes – politics becomes a righteous mission. And what a politics! The achievement of a privatized and deregulated telecommunications industry that Negroponte saw as a righteous mission, now lies in near ruin. It turns out that deregulation also freed companies (many now bankrupt) to pad demand forecasts, pump up stock values, and otherwise "cook the books," leaving shareholders (overall markets are down about 40% and the figure is much far higher in communication) and workers (500,000 telecommunications jobs lost in the U.S. alone) to pick up the pieces.⁴⁷

Even liberals bought into this with their own myth: if you build it, they will come. Well, as it turns out, to summarize a government report of September 2002, despite the fact that almost all U.S. families live in areas where a high-speed Internet connection is available, many see no compelling reason to pay extra for it.⁴⁸ Similar results documenting the persistence of cyberspace "choose-nots" have been found in Canada.⁴⁹ This has not stopped people from trotting out version after version of the myth. According to one technology reporter, "Perhaps it is time to update the old adage: 'If you give me a fish, you feed me for a day. If you teach me to fish, you feed me for life.' Maybe it should now say: 'If you give me information, you answer one of my questions. If you get me online, you let me answer my questions for myself'."⁵⁰ Even a report from a left-wing think tank, published in the midst of the most substantial decline ever experienced by the telecommunications

industry, calls for diminishing regulation of telephone companies (referred to as “regulatory symmetry”) to enable them to speed up the production of broadband networks.⁵¹ Nevertheless, by the end of 2002 it remained the case that, aside from eBay and, to a lesser degree, Amazon, the only businesses actually making money from the Web were, as one article gingerly put it, those “appealing to baser interests or making use of questionable business practices.” Among these were sex-related businesses, including subscriptions to image and video sites and businesses promising enhanced sexual prowess.⁵²

Caught in the crunch, industry leaders are much less optimistic. As one from AT&T put it, “I think that the approach of ‘build it and they will come’ has been a disaster for the industry. I don’t think we’re ever going to see it again.”⁵³ Perhaps it is time to move beyond myths to base policy on the admittedly banal premise of determining and then meeting people’s genuine communication and information needs – with whatever mix of technologies and human capabilities, at whatever level of technological development, that can actually meet those needs. But I am not convinced that we are capable of doing so.

With the collapse of the telecommunications and Internet industries and the attacks of 9/11, we have come a long way from the arrogant triumphalism of the dot-com boom. Where will it lead? Perhaps sober reflection might increase support for a genuine cosmopolitan politics, if not a new internationalism. But perhaps that will not be the case and we will find ourselves facing, at first regionally and then perhaps even globally, what Robert Kaplan has called *The Coming Anarchy*. But it is hard to be sure. Let me conclude on arguably a more hopeful, if mythic note.

Years ago, Salman Rushdie, in the heady days before a bounty was placed on his literal head, wrote an essay on one of the most popular movies, and myths, in American culture, *The Wizard of Oz*. Among its many resonant themes, the myth of technology must have stood out for readers of the original novel published in 1900 at a time of fierce debate about robber barons of industry corroding Lincoln’s republic, as well as for Depression-weary viewers of the 1939 film. For the movie hinges on unmasking a Wizard who promises, if not salva-

tion, then a safe trip home, with a technology whose special effects are only matched by the secrecy surrounding their use. The Wizard operates behind a curtain; the source code, as it were, safely hidden, until Dorothy's dog Toto chews it open, and we realize that the Great and Glorious Wizard of Oz is just an ordinary man, a Kansan like Dorothy, but with access to the special effects machine. Dorothy learns that technology puts on a good show, with all the trappings of magic, but doesn't get you where you really need to go. After the dot-com bubble burst, who trusts Bill Gates to point out the road ahead? But, once again, it is easy to debunk the myth, finger the conjurer, applaud the trickster, particularly one as cute as Toto. In a real sense, it's child's play. It is more difficult, but it seems to me even more important, particularly to set against the threat of Kaplan's anarchic chaos, Rushdie's conclusion to his essay on the Wizard: "In the end, ceasing to be children, we all become magicians without magic, exposed conjurers, with only our simple humanity [or perhaps, I might add, our simple banality] to get us through."⁵⁴

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