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Self-Colonizing eEurope: The Information Society Merges onto the Information Superhighway

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The 2002 German film *Halbe Miete* (*Half the Rent*) follows a computer hacker in his thirties named Peter as he “unplugs,” that is, as he makes the conscious decision to live his life off-line.¹ The gaunt hacker emerges from his darkened computer room to discover that his girlfriend has died in their apartment under ambiguous circumstances. Distraught, he puffs a cigarette in a daze until his cellular telephone rings and frightens him; instead of answering, Peter flips the phone over, removes the data chip from the back, and burns the chip with his cigarette. In this moment, Peter literally and symbolically destroys his means of digital communication and deliberately disconnects from telecommunications networks; in Peter’s words, “I am no longer reachable.” In few American films about the internet in the 1990s or early 2000s does a main character decide to unplug, or completely disengage.² Instead, the main characters in films like *The Matrix* and *The Net* almost always battle with evil forces over control of the internet, ultimately using the technology as a weapon with which to defeat their foe. In short, in American film, “winning” means mastery of the internet, not avoidance or rejection. Although American films far outsell German films in Germany, even domestic German-language films like *Halbe Miete*, this alternative representation suggests that the internet was “thinkable” in different terms in Germany and that a certain anti-internet sentiment made sense. As German cultural studies has shown, this skepticism toward technology stemmed in part from Germany’s legacy of anticapitalism, meaning that technology became equated with the capitalist domination critiqued by German thinkers.³

This comparative article is about the varying national imaginings of the internet in Europe and the United States, how they intersected with and were promoted by different policies regulating the technology. I argue that the United States and European Union member states had very different views of the internet—

what it could do and what it was for—and their governments also took varying approaches to its regulation before the year 2000. While the internet was conceptualized in the United States as a “new frontier,” or as simultaneously global in reach and essentially American, European news media, popular culture, and policymakers imagined the internet in local and material terms.⁴ By this I mean that, in Europe in the 1990s, the internet was conceptualized as subordinate to national structures, or as a tool of the state. Not necessarily an expansive and shapeless space where individuals could escape their bodies and self-actualize, the internet was imagined as materially located in computers and as an important yet optional tool for people to use. Unlike policymakers in the United States, who promoted free-market capitalism and aimed to help corporations set up camps on this new virtual frontier, policymakers in Europe in the 1980s and early 1990s regulated the internet using the nationalist and protectionist models used to regulate other media (e.g., the BBC in the United Kingdom and the BRG in Germany).⁵ This regulation subsidized national telecommunications corporations with public funds as these corporations expanded service into internet providership. With these subsidies, European Union member states hoped to protect domestic jobs in the face of what they viewed as U.S. corporate/economic imperialism. Thus, Europeans initially conceptualized and tried to regulate the internet as if it were a public utility, a public space, or an arm of national media organizations; this meant that nation-states focused on providing access to, and protecting the privacy of, all citizens, as well as advocating for global regulations of internet content to further protect their citizenry.

However, this article is ultimately about the *failure* of these European policies; it is about a policy road tried but ultimately not taken, or about the failure of European policymakers to put a particularly European stamp on internet regulation. It charts the European Union’s eventual adoption of the free-market capitalist approach to the internet developed in the United States. Although in the 1980s and early 1990s, it was unimaginable in Europe that the internet would fit into the established regulatory systems for radio and television, this notion became increasingly less viable in the late 1990s. As a result, deregulatory laws began to emerge that released the member states’ national hold on media.⁶ The European telecommunications market was increasingly liberalized and privatized, meaning that what was once controlled by the state—including broadcasting—increasingly became the domain of private enterprise.

As Hardt and Negri note in their book *Multitude: War and Democracy in the Age of Empire*, this privatization is central to *neoliberalism*, or the assumption that humanity is best served through corporate, not state, organizations, because capitalism produces individualism and the state produces homogenization or unity. Neoliberalism positions globalization as “determined by an unregulated capitalism—with free markets and free trade,” a notion Hardt and Negri critique by pointing out that globalization is actually highly regulated, for example, through the annual World Economic Forum, where, they argue, the world’s oligarchies “plan the destiny of

capitalist globalization.”⁷ The early 1990s marked Europe’s foray into neoliberalist statehood; increasingly throughout the decade, it “regulate[d] capitalist development in the interest of global capital itself” (280). This assumption, that capital—in itself—held the key to the liberation of its peoples, meant that Europe had become in some sense Americanized or subject to American global power. As Hardt and Negri suggest, neoliberalism masks American imperial (not imperialist) power in that it works to produce the United States and its corporations as inherently benevolent forces.⁸ John Krige makes a similar argument in *American Hegemony and the Postwar Reconstruction of Science in Europe*. Although he does not use the term “neoliberalism,” he describes the emergence of a “consensus empire” and argues that notions such as “internationalism,” while appearing universal and therefore benign, actually support American interests in spreading capitalism and opening foreign markets to U.S. corporations.⁹ In serving the interests of capital and opening its media markets to globally dominant U.S. media corporations, Europe’s regulatory shift served the immediate interests of U.S. policymakers, or of those interested in promoting U.S. economic interests abroad.

The focus in this article is on these shifts—privatization, neoliberalism, globalization, Americanization—as they relate to internet policy. The turn of the century brought the EU’s eEurope 2005 project, which was the nail in the proverbial coffin for statist internet policy in Europe.¹⁰ The eEurope initiative, proposed in 2000, identified the internet as a distinctly American space, as a source of U.S. power and, therefore, as a threat to European economic power. This project relinquished European policymakers’ assumption that they could regulate the internet in its statist tradition and instead suggested that, in order for the European Union to compete economically, it would have to adopt U.S.-like policies. These policies would focus not on subsidizing national corporations but rather on dismantling those protections to promote competition, entrepreneurialism, and innovation. These policies did not generate new funds but redirected existing spending.

This policy shift emerged in part because of a newfound primacy of continental cultural impulses over national ones. The internet was not only envisioned as a powerful vehicle in the global marketplace but also seen as a tool for the construction of a continental cultural identity. This impulse extended to broadcast media as well. During this period, EU governments reconfigured their goals for media to include fostering a particularly European identity in addition to a German or French one. While acknowledging the European Union’s diversity—the various backgrounds, cultures, and histories of its nation-states—this article focuses on the ways the range of renderings of the internet available in these states contributed to “European” cultural imaginings that helped produce and were produced by the eEurope project.¹¹ Source materials include film, websites, and news media from several EU member states, and I focus in particular on policy images and debates, treating these materials like other cultural products. The internet was reimagined by policymakers as a transnational public space that could help diverse

Europeans overcome language, spatial, and cultural barriers to form a collective identity in the form of one “Information Society.” This society was conceptualized in the eEurope policies as a universally accessible but distinctly European space. As a tool for domestic community-building, for economic equality and uplift, the internet was presented as a new sphere within which previously disadvantaged and disparate people might form a collective identity and, together, rise in social and economic stature. But this effect would occur through free-market capitalism. This policy reallocation was produced by and helped to generate a discursive shift; what was imagined as a national “public utility” was reconfigured as an inherently global “capitalist space.” The adoption of the eEurope 2005 action plan—including the endorsement of American-style unsubsidized corporations and hands-off government instead of European-style statist traditions—suggested that the internet functioned as a transatlantic cultural carrier of advanced capitalism.

However, this is not a story of U.S. imperialism in the traditional sense but a more complex story of what Reinhold Wagnleitner terms *self-colonization*.¹² While recognizing American economic and cultural power, I do not intend to argue that an invader intentionally overpowered the European Union; instead, I acknowledge Europe’s role as an actor that willingly adopted attractive cultural, political, and economic models.¹³ The adoption of a U.S. economic model in regard to the internet was understood as mostly beneficial to Europe and not imposed through an overt exertion of U.S. power. Further, the European Union attempted to engage in U.S. economic tactics in order to make the internet in Europe less statist but no less European. The notion of the internet as a virtual nation simultaneously enabled the European Union to imagine itself and produce itself as a unified entity or a collective. In addition, the flow of ideas about the internet and how to use it was not unidirectional. Discussion of the “digital divide”—or the gap between people with and without access to computer networking technology—which preoccupied EU policymakers in the late 1980s and early 1990s, became a national focus in the United States in the late 1990s. Although U.S. news media did not usually cite European policy or media for bringing this focus to the U.S. agenda, I argue that the emergence of digital divide discourse in the United States may provide an example of globalization’s variable flows.

Protectionist Precedents: Europe Before the “e”

European nation-states conceptualized and produced the internet differently. Although variations existed between the United Kingdom, Germany, France, and the Netherlands, these various, nation-specific cultural and technological histories of the internet worked collectively to produce a “European” imagination of the internet—one physically, culturally, and politically distinct from that of the United States in the late 1980s and early 1990s. Although I place European protectionist policies next to examples of resistance or opposition to new technology, I do not intend to argue that

the two are the same; instead, the two distinct notions are related in that both are part of European fears of American expansionism and global economic dominance.

Public service broadcasting (PSB) has traditionally dominated in Europe (although their audience has declined since the 1980s).¹⁴ State-supported national media corporations—like British Telecom in the UK, France Telecom in France, and Deutsche Telekom in Germany—were designed to ensure representations of minority interests and national culture, meaning that, for all practical purposes, these corporations were the “voice of the state.”¹⁵ Although policies varied between EU member states, these corporations were (and, to some extent, are) powerful in almost all European nations.¹⁶ Initially, policymakers in the various member states viewed these corporations as the natural means to enter online spaces, thereby assuming that public corporations would retain their public support and power with regard to the internet. For example, France created a widespread yet primitive internet system called the Minitel in the early 1980s, which claimed twenty-two million connections in 1985.¹⁷ The system was created by France Telecom, France’s national telephone company, and included content as varied as train schedules, telephone directories, news, and information. The Minitel terminals—or computer monitors hooked up to telephone lines—were free to telephone subscribers and, in the early 1990s, boasted 6.5 million terminals, or one for every ten French citizens; in addition, almost a million standard computers were connected to the system.¹⁸ In 1997, the French government began to move away from this system and instead generated a lengthy and complicated plan through which the French government would support France Telecom in the creation of national access to the internet. Although U.S. telecommunications firms—in particular AT&T in the early 1990s—shared a similar history of state support, this French program was far from the corporate-led policy approach promoted by Al Gore in the United States in the same year.¹⁹ The French plan made the Minitel a primarily governmental project, leaving only “those things the state cannot or does not wish to do” up to private corporations, prompting the French Minister of the Economy, Industry, and Employment to say that France was a “capitalist country without capital or capitalists.”²⁰

Although European states like France retained control of media access through national corporate institutions in the late 1980s and early 1990s, they could not control content; sexual content in particular became a major focus of European public debate about the internet, as states dealt in various ways with reactions to the technology’s use for sex and pornography.²¹ Mirroring the early histories in the United States and elsewhere of other communication technologies—print, photography, film—one of the internet’s early uses in Europe was for distributing pornography.²² This was especially the case with the French Minitel, which “first climbed from obscurity to critical mass by becoming the favored distribution mechanism for what are euphemistically described as ‘sexual services.’”²³ The “pink Minitel” or “Minitel rosé”—a portion of the system dedicated to dating, erotic

conversations, and even prostitution—accounted for eight percent of all Minitel activity and was so profitable that the state enacted a thirty-three percent “sin tax” and profited heartily.²⁴ France was unique, as most European nations struggled to suppress sexual content online. Instead of accepting yet taxing such content, many European nations resisted what they called *transborder data flows*, or content produced in different countries but available online within national boundaries.²⁵ This decision suggests policymakers imagined the internet as a threat to national sovereignty, to citizens, and to private property. These European nations attempted to map territorial boundaries onto internet spaces or to create filtering devices or “electronic barriers” that would “impose their boundaries onto the new electronic medium” (109). For example, in 1995 Germany ordered the American company CompuServe to disable German access to particular newsgroups, which the government claimed contained sexual content illegal according to German decency laws.²⁶ Authorities claimed CompuServe violated German law by failing to remove materials, which included over two hundred alt.sex newsgroup sites that contained materials on pedophilia, bestiality, and initially even some on homosexuality, although the latter were eventually stricken from the list.²⁷ German authorities raided CompuServe’s offices in Munich and indicted its manager.²⁸ London’s *Financial Times* reported that this incident marked the first time an internet provider restricted access to content in response to Germany’s legal action.²⁹ In this CompuServe example, Germany attempted to enforce its national legal system onto the nationless territory of the internet. This state action against an internet corporation is an example of what Joel Reidenberg has called Europe’s attempt to “preserve important, yet vaporizing, foundations based on territorial principles and sectoral distinctions.”³⁰ The outcome of this conflict, however, also demonstrates that the ultimate control was with the corporate provider and not the hosting nation-state. CompuServe was not required by any national German law to obey the request issued by German government officials. Although the corporation initially obliged, CompuServe eventually repealed the ban and instead offered users a program that allowed them to restrict content of their choosing.³¹ The incident caused international conflict after Americans began complaining that their freedom of speech rights were being restricted by German law.³²

Statist policies within the European Union—like those in France that created the Minitel and those in Germany that attempted to control internet content—were produced by and were part of a discourse that imagined internet technology as a choice and not an inevitability. U.S. news media celebrated the internet, or what Marshall McLuhan called its “extensions” of the human body,³³ media outlets celebrated how the internet allowed individuals to communicate transnationally and to form new kinds of interpersonal connections.³⁴ While European news media shared this celebratory nature, European news media and popular culture—especially in Germany—also focused on the technology’s “amputations.”³⁵ By this I mean news media focused not only on what German society might gain but also on

what it might lose as it adopted internet technology. To give one example, an article appearing in the *Sueddeutsche Zeitung*, one of the premier newspapers in Germany, opened by suggesting that online shopping would destroy the art of shop-window decoration.³⁶ In addition to focusing on potential losses, other news media questioned the usefulness or necessity of the internet in their articles' very titles, for example, "The Web Is the Goal: Internet, InterNOT; Must We All Really Be Online?"³⁷

A comparison of U.S. and European film also reveals the different cultural renderings available in these different places. In Germany, the internet was imaginable as a choice; in the United States, it was inevitable. In the film previously mentioned—*Halbe Miete* (*Half the Rent*)—the main character, Peter, decides "internot," or to live his life off-line. After his girlfriend's death, he disengages from communication networks by throwing his laptop into the river. Although he is no longer online, Peter remains a hacker of sorts; he begins to "hack" into physical spaces, breaking into people's apartments instead of their computers. Upon his arrival in Cologne, he randomly tries door handles until he manages to sneak in after someone. He explores the man's apartment, his bookshelves, his files, his bulletin boards, his furniture, and his food. From this point on in the film, Peter begins "lurking," a term used in chat rooms for being in a chat room but not participating; he sits in public places and watches how people interact, tracking their schedules and activities. He notes where people keep their spare keys and breaks into their apartments when he knows they are out. But, unlike a cyberspace hacker, who tries to come and go undetected, this urban-space hacker leaves gifts, like beer in the refrigerator. Through this spatial hacking, Peter rediscovers non-computer-mediated forms of communication, thereby reterritorializing and relocalizing his interactions. For example, he cleans a woman's house, leaving a Post-it note in one of her books near a quote he thinks she would find meaningful. Although initially alarmed to realize someone has been in her apartment, the woman is persuaded by the Post-it that the intruder is benevolent; she replies to him by placing a Post-it in a different book. The two continue this dialogue through the woman's library until he eventually arrives in person at the end of the movie and the two (presumably) begin a romance. Peter, trained in and accustomed to computing, does not shift from computer-mediated to direct or oral communication but instead chooses a new screen of invisibility: the book. However, this film suggests that interactions in off-line physical spaces—especially domestic ones—are more meaningful than those online. This film represents the internet as a choice, in that a person could conceivably choose not to be online and, in the world of the film, live a more enlightened life.

While clearly one film is not proof of any dominant sentiment, the conspicuous absence of anything similar in American films suggests that this kind of message may not have found the same cultural traction in the United States. As previously mentioned, in no mainstream American film in the 1990s or 2000s that takes up the internet as a major plot element does a character decide to unplug. Instead, the main characters almost always use the internet for good, as a weapon

with which to defeat evil forces. For example, in the film *The Net*, Sandra Bullock stars as Angela Bennett, a computer programmer who lives most of her life on computers, even ordering her pizzas online. When Bennett stumbles upon a program that allows users to bypass almost any security system, her life gets hacked by an underground conspiracy of hackers; her identity is stolen and replaced with that of “Ruth Marx,” a convicted and wanted felon. For Bennett to best her foe, she must out-hack the hackers. In the final scene, while much has changed about her—she is bathed and tan, has off-line relationships, and ventures outdoors—she is still on her computer. I do not intend to argue that *Halbe Miete* and *The Net* are comparable films, but what I do intend to suggest is that the representation of the internet as something that could be escaped or avoided—a representation largely absent from American film—in confluence with news media questioning the necessity of the technology, indicates that the internet was “thinkable” in different terms in Germany than in the United States. This suggests that German culture incorporated an opposing impulse to the well-documented technological determinism present in the United States; that is to say, perhaps Germans imagined themselves as dominant over technology—as controlling their destiny—in contrast to Americans, who imagined technology as driving history.³⁸

This alternative notion of the internet as a choice may stem from the different histories the technology had in each location. The roots of the internet lie in the U.S. military. The Department of Defense in 1969 built the first internet technology through its creation of ARPANET as part of a cold war military defense project.³⁹ The term *internet* first appeared in 1974 in reference to a technology that networked various networks—“Internet Protocol” (IP)—a phrase used in combination with “Transmission Control Protocol” (TCP) to describe packet-switching, or the process through which computers transfer bits of information over networked wires.⁴⁰ Beginning in the late 1980s and early 1990s, the term became increasingly applied to the variously networked computer systems used by a minority of individuals in primarily military and university locations that operated alongside one another—including computers networked via satellites, radio waves, telephone lines, time-sharing lines, and through private intranet systems.⁴¹

Unlike in the United States, the absence of European military involvement in the history of the internet’s development meant that Europeans did not necessarily imagine the internet as a weapon. In Europe, nonmilitary arms of the state fostered the internet, meaning it was not necessarily tied to cold war military anxieties. But instead of military involvement, perhaps the legacy of oppressive governments in Nazi and communist Europe shaped the way it was imagined. In post-World War II Europe, the state was imagined as responsible for engendering a “healthy” nationalism, meaning that it was responsible for protecting diverse voices in the public sphere as a means to counter the national fanaticism associated especially with German national identity. Policy scholar Andrew Murray described this protectionist and state-controlled system as “paternalist” and “functionalist,” one in

which “state action is considered a means to correct market failures.”⁴² The internet was imagined as part of this project. The internet, therefore, was less a part of cold war military fears than it was in the United States, and perhaps more a part of anxieties about government surveillance and protecting citizens than about teaching appropriate internet use. This connection offers some explanation as to why anxieties in Germany were more evident than those in France or Britain, given its history of National Socialism and closer proximity to communism.

The internet was not only conceptualized as a protected public sphere, or as a space with the potential to inoculate a population against the “wrong” kinds of nationalisms, but it was also imagined as a local space. The “De Digitale Stad,” or Amsterdam’s Digital City, went online in 1994 (and still exists today) and is an example of how policy and culture work in confluence.⁴³ The online city, which was an online presence for the city of Amsterdam, was wildly popular locally, and, during its inaugural week, Amsterdam suffered a modem shortage as well as overloaded telephone lines as the Dutch scrambled to get online. By December of its inaugural year, it averaged over 4,000 visitors a day and 120,000 a month.⁴⁴ A government initiative and national telecommunications corporation Dutch Telecom founded and funded the digital city.⁴⁵ The project worked to rematerialize the internet by giving it a center and locating it in a historical and urban marketplace; the city also localized the internet in that it created a language- and location-specific online presence for citizens of the Netherlands and inhabitants of Amsterdam. The Digital City’s technology was cutting edge in that it incorporated sound as well as moving images, and in that it was the “first real on-line presence for a city” (37); yet this online city’s servers and public-access computers were headquartered in De Waag, a famous and historic building built to house and weigh goods in the fifteenth century (37). As a result, the internet was placed in the context of over five centuries of mercantilism, updating it to cyber-mercantilism but still enabling access to the historic spaces present in Amsterdam. By 1996, the Digital City website was almost entirely in Dutch. It had a colorful homepage featuring a sleek black background and red and white letters. The focal image pictured a blue, impressionist, and digital rendering of Amsterdam as if it were shot from an airplane. Within this graphic were two clickable hyperlinks—“Visit the City as an Occupant” (“Bezoek de Stad als Bewoner”) and “Visit the City as a Tourist” (“Bezoek de Stad als Tourist”)—both in Dutch. In addition, other links on the site were to “Latest News” (“Laatste Nieuws”), which contained information on Amsterdam (both its digital and analog incarnations), and “Price Information” (“Prijs Informatie”), where users could find out how to advertise on the site or become a sponsor. The only English on the page was a hyperlink on the left titled simply “English,” which led users not only to “official” information from the creators of the Digital City, but also to “unofficial” websites of people from Amsterdam that happened to have English content. The latter pages were described as a tourist guide to the city, or “a selection, to help you find your way. The city

consists of squares with information on a theme, and neighbourhoods with homepages.”⁴⁶

This city illustrates how the internet was produced as local in Europe—specifically in the Netherlands. The website worked culturally to spatialize the internet, delimiting it metaphorically in a way that notions of the internet as a global nonspace in the United States did not; a “city,” a fixed location with a center, is not a sprawling space like a new frontier or an information superhighway. In its own history, written on a page within its website called “The Digital City Foundation,” governmental supporters and founders of the project describe it in local terms, or as a “‘test bed,’ where the first shoots of an electronic community can begin to grow.”⁴⁷ Imagined as a public sphere that would help produce a more functional state, the Digital City was presented as a new, communal space, a technology that would provide users with information about and access to their government. The city’s goal—as identified by Marleen Stikker, its founder (and its “mayor,” in that she continued to have controlling power over its organization)—was to provide a new transparency to the government of Amsterdam; for example, she encouraged citizens to scroll through local government meeting minutes. Users were defined as “not consumers but participants,” allowed to “join in the construction of the city, and thus take part in the shaping of the electronic society.”⁴⁸ Thus, the Digital City promised universal and open access to all citizens who wanted to be knowledgeable or involved in their government, thereby supposedly creating better and more efficient policy.

This society was imagined as not only important within the scope of the internet, but important in a national scope in that it could help Dutch citizens connect. In this sense, the city was imagined as simultaneously a local (or city) and a nationalist (or state) power play over online spaces. The intense rhetoric of democracy in the city’s descriptions meant that access was a main priority; founders hoped the eventual participants would “reflect the overall mixed profile of society,” and so they made special efforts to ensure a diverse pool of citizens—in particular, women, senior citizens, and minority groups—could connect.⁴⁹ Beyond creating universal access to this new organ of democracy, Stikker imagined the Digital City as a means to introduce the internet to the Dutch. According to this vision, the Digital City would, then, not only serve as a training ground for citizens, community organizations, and businesses on how to use the internet, but it would also contribute toward the development of online technologies. It would help prepare the Dutch for coping with historic shifts afoot in the period, globalization in particular.⁵⁰ The Digital City was imagined as helping the Netherlands cope with globalization by “look[ing] for new possibilities, new openings and new services.” The city would help foster a European identity through a “national network of digital cities” that could “also fulfill a role on a European level through the transfer of know-how and the creation of connections for co-operation across national frontiers.”⁵¹ In this vision, Dutch national identity and European continentalism were streamlined

into one technological future utopia, a kind of “Dutch virtual nation” with the potential to eventually take on its American counterpart.

In some senses, Marleen Stikker’s rhetoric mirrored the democratic new frontierism in the United States, but, ultimately, the Digital City was an oppositional voice to those metaphors; the Digital City would deliver to the Dutch what the virtual frontier had promised the Americans but failed to provide. Stikker argued the internet was not a new space but a means of reconfiguring existing space. She represents the Digital City as simultaneously material, local, and technological, not abstract, global, and virtual reality.⁵² In an interview, Stikker stated that it was “just like an ordinary city. Everything you’d come across in ordinary life, we get here too.” She noted that, through the “Central Station,” users could access the internet and thereby “patronize a digital cafe, browse through a digital kiosk, enter the digital house of culture and the arts, or pay a visit to a digital sex-shop, complete with a digital darkroom in the back.”⁵³ The Digital City was, then, imagined as being in direct opposition to the internet as it was culturally constructed and regulated in the United States; for example, Stikker described the city as the manifestation of the American false promise of the internet when she said, “All those ideas you had heard so often from the United States about the new information society, tele-democracy, electronic citizenship, suddenly became a reality on DDS.” Unlike in the virtual frontier, in the Digital City, citizens could have freedom; speaking about the founders, Stikker said, “We are no moralists.” Of course, she followed that statement by moralizing, saying she, like the German authorities taking on CompuServe later that year, would “not tolerate neo-fascist clubs or child pornography.”⁵⁴ In the Dutch rendering of the internet, “democracy” meant governmental transparency and not complete unfettered rights to produce and/or consume online content.

In the United States, corporations like America Online explicitly capitalized on national identity in their corporation’s names, not only linking internet identity to national identity but also constructing internet space as corporate and not necessarily public.⁵⁵ Policy scholar Steven Miller credited American Online’s success as one of the “pioneers in commercializing cyberspace” with this “easy-to-use graphic interface.”⁵⁶ AOL publicized itself as a service provider for people unfamiliar and/or uncomfortable with computers and networking.⁵⁷ Publicized as “Your Gateway to the Internet,” America Online provided its clients as early as 1993 with a proprietary software called AOL 1.0 for Windows or AOL 2.0 for Mac. This software offered a point-and-click graphical user interface (GUI) when most providers at the time still used command lines.⁵⁸ This software “portal” claimed to “provide everything a user needs to navigate the Web”—search engines, links, email services, games, shopping pages, chat rooms. As media scholar Siva Vaidhyanathan writes, this browser was imagined using the same utopian rhetoric that imagined individual liberation online: “the commercialized World Wide Web—America Online—would be the operative medium of cultural evolution.”⁵⁹ AOL’s browser was the first of its kind and remained the most successful until Yahoo! and Netscape gained popularity in

1994. AOL 1.0 was an American gateway to the global space of the internet, but this gateway was not necessarily a repository of information about the United States, did not serve as a governmental arm, and was accessible only to those who paid the AOL fees.

Thus, in Europe—especially in France, Germany, and the Netherlands—visions of the internet as a global, virtual frontier or as an inevitability did not dominate; instead, European policymakers, news media, popular culture, and internet users imagined the internet in material and local terms, as a technological choice or a public service. As both a driver and product of this discursive rendering, European socialist policies in the early to mid-1990s regulated the internet as if it were a public utility, prioritizing national corporations, protecting citizens' privacy, and projecting local identity and community onto online spaces.

The Integrationist Turn: Configuring and Connecting eEurope

These materialist and localist cultural imaginings were produced in part by the European Union's status as a still fairly recent collection of disparate and sovereign nations. The story of the European Union is a story of increasing European or continental power and decreasing national power in the interest of global economic competition.⁶⁰ Throughout this history, but especially in the 1990s, Europe shifted its economic policy from the statist models outlined above to more free-market policies; that is to say, beginning in the 1950s and increasingly in the 1990s, EU policies superseded those of member states and became increasingly similar to U.S. policies.⁶¹ With this shift, the meanings and purposes of media in Europe were reimagined; the post-World War II notion that the state should regulate media to ensure a "healthy" nationalism—unlike that displayed by National Socialists (Nazis) in Germany—shifted to a notion that media would and should supplant nationalism with "Europeanism." In other words, media became imagined as a major part of the cultural web binding EU member states together. Thus, by the late 1990s, the importance of national beliefs, cultures, values, and historical experiences diminished among EU member states as transnational governmental bodies superseded statist models for regulating and producing media, including the internet.⁶²

State control of media organizations, including those regulating the internet, has been one major point of contention as nations within the European Union have struggled to retain their national identities while simultaneously producing a "European" one. The issue of "integration"—the synchronization of member states—has caused some strife as nation-states resisted what they perceived as a loss of sovereign power in the face of supranational EU law. Under the principle of "supremacy," EU law trumps national laws if there is a conflict between them, deliberately weakening the nation-state in the interest of establishing continental consistency between legal systems and policies.⁶³ Despite such long-term attempts at integration, EU media policy in the 1990s remained one location where conflict

arose, in particular between “dominant actors” like France, Germany, and the United Kingdom.⁶⁴ The European Union’s transnational legal system disrupted the notion in Europe that national territorial space and “politico-communicative space” were mutually productive, or the notion that national media, national territory, and state government necessarily all worked together to produce national identity. This assumption historically underwrote public policy’s financial support for national media corporations.⁶⁵ In other words, the introduction of a transnational political structure began to dismantle the assumption that states should focus their financial efforts on supporting media designed to reinforce national boundaries. Thus, regulating the internet was not only a question of how to control and manage the media itself but was also a place where tensions within the European Union were being worked out.

Although the European Union successfully integrated its markets early in its history, integrating its culture has proven a more difficult task, a task that was mapped onto European imaginings of the internet.⁶⁶ Although European nations shared a common history—Roman and Greek roots, Middle Age feudalist economies, and involvement in both world wars (but on different sides)—national identities within each member state often stressed differences rather than these shared elements.⁶⁷ In addition, language differences, a hurdle not present in the same way in the United States, slowed or prevented cultural integration.⁶⁸ European Union policymakers in the 1990s turned their attention to creating a common culture shared by member states in part by passing initiatives focused on the production of multilingual websites. The economic and policy infrastructures previously used had focused on building national culture through broadcasting; these policies were shifted toward building European culture on the internet. The focus was “simply extended from one political level to another, without any serious consideration of what might be involved in moving from a national community defined by the boundaries of a single state to an international community defined by integrationist political economics.”⁶⁹

Internet use rose in Europe in the 1990s at the same time as European initiatives emerged to deregulate media corporations by reconfiguring media toward the continental level. But while television signals were standardized, and therefore easily transmittable and receivable across national boundaries—and indeed already transmitted and received across neighboring countries’ boundaries even before unification policies were enacted—the internet was a different story. Because the internet developed independently and differently in various European countries, it was not standardized; this posed technological challenges to EU media integration and, beginning in the 1970s, European nations battled with each other and with the United States over who would set the protocol, or the system computers use to communicate with each other. Development in the United Kingdom was the earliest, most pervasive, and most similar to that in the United States.⁷⁰ In contrast to the British, the Germans and the French did not take this route and instead their strong

governmental involvement created national research networks—Bildschirmtext in Germany and Minitel in France—which prevented the nongovernmental involvement that occurred in the United Kingdom and United States; this governmental control slowed the internet’s development in those countries.⁷¹ This slow growth reinforced the assumption that the internet was an English-speaking space.

This assumption is visible in the content on Germany’s main government website which, even as late as 1996, looked like a tourism site aimed at English and French speakers.⁷² The site was made up of a plain white background with a photomontage centered on the screen. The photos in the montage pictured the Brandenburg Gate—the former dividing line between East and West Berlin and the site of John F. Kennedy’s famous “Ich bin ein Berliner” speech—and the office building of the Bundeskanzler, or German Chancellor. The title text on the site read “Die Bundesregierung Informiert,” or “The Federal Government Informs.” The only other text on the site was in the form of links to “Facts about Germany” and “Allemagne—Faits et Réalités” (or “Germany—Facts and Realities”). These links led the user to pages that detailed the reconstruction of Berlin after the fall of the Berlin Wall, featured “Pictures of the Month,” and contained information and images of popular travel sites in Germany. On the entire website, the only information designed explicitly for Germans was on the far left, in a separate window from the main page, which contained a link to press releases. In contrast, the White House website did not contain any tourist information or images and instead was simply a searchable database for press releases with a gray background.⁷³

In hopes of integrating these disparate, state-operated and -subsidized “internets,” European policymakers launched the eEurope 2005 project in December 1999.⁷⁴ According to the EU initiative document, this project was intended to ensure that adoption of the internet was ultimately “cohesive, not divisive. Integrating, not fragmenting. An opportunity not a threat.” The project hoped to bring “the benefits of the Information Society to the reach of all Europeans” by providing financial incentives to private corporations willing to invest in internet infrastructure that would provide access to more individuals.⁷⁵ As this policy illustrates, the European Union recognized the internet as both American-dominated and corporate, and reconfigured their policy structures to address this recognition. The text of this project argued that the European Union was losing to the United States in cyberspace. For example, the eEurope initiative reported, “Experience in the United States shows that new technologies can drive growth and create jobs. Internet-related companies alone today account for 2.3 million direct jobs—not counting the considerable indirect employment effects—up from 1.6 million in 1998. The uptake of digital technologies, in the context of flexible labour and capital markets and reduced regulatory impediments to competition, have led to productivity growth and paved the way for the lasting, strong, and non-inflationary economic growth in the United States” (4). In addition to U.S. economic growth produced by internet industries, the eEurope 2005 text also cited higher internet adoption rates as one reason why the

U.S. was gaining ground in online spaces and markets. By 1999, the U.S. internet penetration rate was seven times higher than the European Union's and over eight times higher than Japan's; "early competition" and American dominance of the telecommunications industry were cited as the reasons for its high penetration rate.⁷⁶ U.S. corporations were major threats to European media firms in general because U.S. companies provided cheaper and more complete content.⁷⁷

The eEurope project demonstrates that in the late 1990s, European policymakers felt that, in order for the European Union to compete in media spheres, it would have to adopt U.S.-like policies. These policies would no longer subsidize European corporations but would instead dismantle those protections to promote competition, entrepreneurialism, and innovation. Paradoxically, creating a more liberal market initially required heavy government involvement and rigorous regulation.⁷⁸ This regulation would help force member states to integrate or "harmonize" their media policies, which were characterized in EU studies as "a patchwork of inconsistency," which tended to distort and fragment the market, prevented European corporations from profiting from the "internal market" within Europe, and prohibited the concentration of venture capital required to gain market dominance over emerging technologies.⁷⁹ This suggested that statist policies designed to deliberately hamper competition in favor of national media corporations, as well as localist projects like the Digital City, contributed to Europe's lagging status in internet development; instead, the European Union resolved that Europe should work to produce the internet as global and not local, and should curb its domestic protectionism in favor of a more capitalist, liberal global-market policy.

The eEurope project helped produce the internet as a European space, or a public place in which disparate European citizens could interact; the "e" metaphorically replaced the nation in that "e" not only stood for "electronic" but also ultimately for "Europe" in the symbolic trumping of continental identity and governmental structures over national ones. This project called for member states to "promote network security and broadband and to promote eGovernment, eBusiness, eHealth and eLearning" by supporting greater competition.⁸⁰ Although the project did not generate funds for investment in computer technology, it did provide a policy framework to redirect existing expenditures toward investment in connectivity. The project moved to upgrade European telecommunications infrastructure; create financial incentives from the EU or on the national level to adopt internet technology, especially broadband; remove "regulatory obstacles to the development of new services"; and create government incentives for corporate investment in information technology. Two years later, an EU study deemed it a success in that penetration rates had increased in the years following the policy's enactment, prices for connection had decreased, and computer-education programs had increased.⁸¹

But the eEurope policy shift retained its Europeanness in that its "key objectives" were presented in egalitarian terms: to connect every citizen, to create a

“digitally literate” Europe, to ensure the process is “socially inclusive” and fosters “social cohesion.”⁸² Universal access and social cohesion were clearly stated priorities, suggesting that the public utility model of previous policies remained in the eEurope policy. The eEurope 2005 project hoped this market liberalization would increase internet adoption rates by creating the *information society*, a term first coined in 1994 that framed policy debates about the internet thereafter.⁸³ Through this metaphor, the internet was reimagined as not a national but a continental public space that could help diverse peoples overcome language, spatial, and cultural barriers to form a collective identity. This society was conceptualized through policy as a distinctly European space, or one “based on its cultural heritage and linguistic diversity,” that Europeans could universally access.⁸⁴ The internet was not only imagined as simultaneously a powerful vehicle in the global marketplace but was also seen as a tool for the construction of a continental cultural identity.⁸⁵ Although policymakers imagined the eEurope project as in some part a socialist project, they did not acknowledge the problematic nature of using capitalist engines that require inequality to equalize diverse citizens; they did not problematize the tension between notions of collective identity, corporate identity, and national identity.

The information society metaphor stands in marked contrast to the dominant “information superhighway” metaphor used by the U.S. government and to the “net” or “web” metaphors used by internet providers and news media.⁸⁶ A society connotes a community organized around a center, like a town marketplace; a superhighway connotes mobility, suggesting departure from a central location; and a net or a web suggests either a decentralized organization or a “trapped” collective. Europe’s conceptualizations of the internet may have been reactive to those in the United States; its different conceptualizations were in part due to its historically socialist skepticism of American consumerism and to its reaction to notions of American economic and cultural imperialism. This means that Europe attempted to bring the internet in line with other kinds of state-controlled and -regulated media in hopes of keeping American culture outside European national borders. In short, European policymakers adopted U.S. policies regulating the internet in an attempt to build a continental identity and economy capable of competing with U.S. cultural and financial power, but at the same time retain its attention to access and equality.

Although the eEurope 2005 project saw the internet as an economic engine, the project also saw the internet as a means to fix already existing and previously unsolvable problems in the physical world, meaning it focused on the internet’s potential to solve internal social justice problems as well as incongruities among EU member states. This massive internet-expansion proposal identified the internet as a key to Europe’s success, expansion, and future through utopian and egalitarian rhetoric. The project aimed to “stimulate the development of services, applications and contents,” while “providing access for everyone in order to combat social exclusion, whether it is due to particular needs, a disability, age or illness.”⁸⁷ In European visions, the newness and separateness of the internet provided a new

sphere through which previously disadvantaged people might rise in social and economic stature. In a sense, this egalitarianism was positioned in news media as combating what was imagined as a form of American greed. The American rush to and successes in capitalizing on the internet were described as capitalist selfishness and wastefulness. For example, one article in Germany's *Sueddeutsche Zeitung*, titled "The Gold Rush in Cyberspace," opened by describing four founders of Netscape in the following terms: "Passersby couldn't believe their own eyes: Four young men in front of a nondescript office building in California's Mountain View were washing their cars with champagne."⁸⁸

Thus, media corporation deregulation did not mean that the European Union entirely relinquished its protectionism; on the contrary, it remained (and remains) more protectionist than the U.S. government. This protectionism worked to maintain a distinct Euro-space online, just as the Digital City maintained a particularly Dutch cultural and governmental space online, but on a continental scale. The protectionism was also designed to protect European corporations in the face of globalization, or what they saw as U.S. economic imperialism. The EU's policies meant that its media regulation remained "part of an umbrella regulatory framework for communication" aimed at the "correction of the trade imbalance with the United States." Through policies like the eEurope 2005 project, the "communications industry has been portrayed by the European Union as a panacea solution to the long-term loss of jobs in manufacturing industries, as domestic companies move offshore."⁸⁹ Like the European Union itself, the creation of a distinctly European space online was imagined as an antidote or a protection against globalization, a "shield against wider global forces."⁹⁰ Thus, although the eEurope project did diminish the power of the state, the state remained important in digitizing Europe. Through the project, the state was still responsible for its citizens' privacy and individual security online.

In sum, the adoption of the eEurope 2005 project—and the adoption of American-style unsubsidized corporations and hands-off government over European-style statist traditions—suggested that the internet, as an American virtual nation, became a transatlantic cultural carrier of capitalism and democracy. However, even though Europe employed similar political systems in its approach to the internet, it retained its alternate value structures; it aimed to use free-market capitalism to create its own distinctly European space online. In other words, the European Union reconfigured its policies to be more American but aimed to use that reconfiguration in order to achieve its previous goals. At the same time as policymakers were reimagining national and continental identity, they were also reimagining the internet. Rather than an extension of the state, the internet became reconceived as its own sovereign or semi-sovereign place, organized and controlled by corporations and not states. Instead of the state attempting to control corporate content, as Germany did in its attack on CompuServe newsgroups, the corporate powers became

the sources of user protection and, in a sense, citizenship, ultimately making the corporate-user relationships similar to state-citizen relations.⁹¹

Complex Cultural Flows and Bridging the Digital Divide

As this article has illustrated, producing the internet as a public utility—a policy impulse that focuses on accessibility to the public as a whole—has been a policy goal in Europe since the late 1970s and early 1980s. However, universal access was not on the forefront of the policy agenda in the United States until the mid-1990s; instead U.S. policymakers focused more on colonizing online spaces and working to ensure American corporations dominated the internet, and worried less about whether all American citizens had access. They assumed (in keeping with Reaganomics models) that technology would eventually spread or “trickle down” to the citizenry. But in the late 1990s, this focus on corporate access began to shift. Policymakers began instead (or in addition) to focus on the “digital divide,” or the gap between those with and without internet access.⁹² The focus emerged in the wake of a flurry of governmental studies in the late 1990s that detailed the factors determining what was called “information disadvantage”; these factors included income, race, education, age, and region.⁹³ Although U.S. census data revealed that computer and internet use had increased in the 1990s, it also revealed that particular groups had increased more than others.⁹⁴ These reports discussed internet access as necessary for cultural citizenship, mirroring terms used in the eEurope initiative to describe the “information society.” For example, one report issued in 1999 by the National Telecommunications and Information Administration of the U.S. Department of Commerce, titled *Falling Through the Net: Defining the Digital Divide*, stated that “no one should be left behind as our nation advances into the 21st century, where having access to computers and the Internet may be key to becoming a successful member of society.”⁹⁵ In addition, the Clinton administration began to discuss computer and networking skills as “basic skills” and as “increasingly important for full participation in America’s economic, political and social life.”⁹⁶ Thus, beginning in the late 1990s, U.S. governmental institutions represented fixing the digital divide as important for U.S. democratic ideals as well as for its economy.

As an avenue to an idealized citizenship, the internet was increasingly discussed as an educational requirement, making it a kind of public utility provided by the state, and school access became, therefore, a primary focus of digital divide debates.⁹⁷ Indeed, a study by the National Center for Education Statistics, quoted by the Clinton administration, showed that in 1998, only 39 percent of classrooms in poor schools had internet connections, as compared to 74 percent in wealthy schools.⁹⁸ In the first mention of the “digital divide” in the *New York Times* in 1996, a journalist detailed the stories of two students, John Dixon and Michael Giardina, who lived in Silicon Valley. John, a “freckle-faced fifth grader,” attended a school in “one of the region’s poorest communities,” while Michael attended a “pricey and

prestigious” private elementary school. John had to “make do with the school’s six-year-old IBM 386 PC,” described as “little more than electronic typewriters”; he wished the school could afford better technology “so we could look up stuff on the encyclopedia and see pictures.” In contrast, Michael had the “latest Apple Power Macintosh” that he could use to “manage his own World Wide Web page.”⁹⁹ In response to these reports and to increasing news coverage of internet inequality, Bill Clinton made universal access to the internet through educational institutions a national goal. In 2000, Clinton, CEOs of U.S. internet provider corporations, members of Congress, cabinet secretaries, and community leaders conducted a nationwide tour—called “From Digital Divide to Digital Opportunity”—through which they hoped to “focus national attention on initiatives aimed at overcoming the digital divide.” In the same year, the Clinton administration released a “National Call to Action to Close the Digital Divide,” which focused on connecting school children, making home internet access “universal” by providing neighborhood access through “community technology centers,” and “empower[ing] all citizens with IT skills.”¹⁰⁰

I do not intend to argue that European focus on access caused a similar focus in the United States. Instead, this focus in the United States coincided with a generalized focus around the world on computing technology that accompanied the turn of the century, as governments and corporations braced for what they viewed as the impending Y2K disaster.¹⁰¹ Digital divide debates also extended to discussions of global inequalities. In a foundational text, policy scholar Pippa Norris detailed this phenomenon as a global concern, not just a domestic one. As she argues, the digital divide was symptomatic of persistent economic inequality both domestically and globally, meaning that historically disadvantaged groups in the United States and around the world also did not have internet access.¹⁰²

In conclusion, the internet’s web of signification differed in the United States and in the European Union in the 1990s. In the United States, the internet was imagined as an inevitability, as a new frontier that would usher the United States into a new era of global economic dominance. In Europe, the internet was imagined before the late 1990s as a technological choice and as a public utility that the state should provide through its support of national telecommunications corporations. Despite these differences, political imaginings of the internet in the two locations increasingly dovetailed. While European policymakers increasingly imagined the internet as a free market and a means for global economic power, American policymakers increasingly imagined the internet as a requirement for competent democratic citizenship; Europe was “Americanizing” its internet policies—increasing competition by dispensing with state support for national telecommunications corporations—while the United States was “Europeanizing” its policies—increasing state support to bridge the digital divide.

Notes

¹ *Halbe Miete*, dir. Marc Ottiker (Düsseldorf: Filmstiftung Nordrhein-Westfalen, 2002). Although the mainstream film industry's successes mirror one another in both the U.S. and Europe—meaning mainly American films are blockbusters—this film is an example of a locally produced German cultural artifact that received attention in German news media. See “Und Keiner Kommt aus der Tiefe des Raumes,” *Frankfurter Allgemeine Zeitung*, October 29, 2002; “Wer Nicht Alles auf der Berlinale Reporterin ist,” *Frankfurter Allgemeine Zeitung*, February 12, 2002; Hanns-Georg Rodek, “Achtung, Explosionsgefahr! Zwei wunderbare deutsche Filme beim Festival in Hof und ein paar Gründe zur Hoffnung,” *Die Welt*, October 28, 2002; and Andreas Thomas, “Sympathisch sei Peter gar nicht angelegt: 1/2 Miete,” *Filmzentrale*, <http://www.filmzentrale.com/rezis/halbemieteat.htm> (accessed October 30, 2008).

² While *The Matrix* has people literally unplugging their bodies from the network, characters must jack back in to regain power or control. They do not, for example, retreat to Zion and remain off-line. The great majority of examples show the main characters remaining engaged in networking technologies: *GoldenEye*, dir. Martin Campbell (London: Eon Productions, 1995); *Hackers*, dir. Iain Softley (Century City, CA: United Artists, 1995); *Johnny Mnemonic*, dir. Robert Longo (Culver City, CA: TriStar Pictures, 1995); *The Lawnmower Man*, dir. Brett Leonard (London: Allied Vision, 1992); *Lawnmower Man 2: Beyond Cyberspace*, dir. Farhad Mann (London: Allied Entertainments, 1996); *The Matrix*, dir. Andy Wachowski and Larry Wachowski (Burbank, CA: Warner Bros. Pictures, 1999); *The Matrix Reloaded*, dir. Andy Wachowski and Larry Wachowski (Burbank, CA: Warner Bros. Pictures, 2003); *The Matrix Revolutions*, dir. Andy Wachowski and Larry Wachowski (Burbank, CA: Warner Bros. Pictures, 2003); *Minority Report*, dir. Steven Spielberg (Century City, CA; Twentieth Century Fox Film, 2002); *The Net*, dir. Irwin Winkler (Culver City, CA; Columbia Pictures, 1995); *Tomorrow Never Dies*, dir. Roger Spottiswoode (London: Eon Productions, 1997); and *You've Got Mail*, dir. Nora Ephron (Burbank, CA: Warner Bros. Pictures, 1998). One anonymous reviewer of this manuscript rightly observed that *The Truman Show*, dir. Peter Weir (Hollywood: Paramount Pictures, 1998), is a notable exception in which the main character disengages from the information society and mass media, although the film does not focus on the internet per se.

³ See Rob Burns, introduction to *German Cultural Studies: An Introduction*, ed. Rob Burns (Oxford: Oxford University Press, 1995), 1–8.

⁴ I write about these U.S. conceptualizations in more detail in my as-yet unpublished dissertation manuscript: Stephanie Ricker Schulte, “State Technology to State of Being: The Making of the Internet in Global Popular Culture (1980–2000)” (PhD diss., George Washington University, 2008).

⁵ Although the press was subject to less regulation than broadcasting media in terms of content, the press was also heavily subsidized by European Union member states. See Alison Harcourt, *The European Union and the Regulation of Media Markets* (New York: Manchester University Press, 2005), 3.

⁶ See, for example, the 1996 Information Superhighway Law in France, the 1996 Interstate Agreement on the Regulation of Broadcasting in Germany, the 1997 New Media Act in Italy, the 1998 Law on Digital Television in Spain, and the 1996 Broadcasting Act in the United Kingdom. For more on these regulations, see Harcourt, *European Union*, 161.

⁷ Although I agree with Hardt and Negri that free-market capitalism is paradoxically impossible without regulation from the state and wish to acknowledge the influence of political and industry leaders enacted through international meetings such as those in Davos, I do not intend to reinforce the conspiratorial tone expressed by Hardt and Negri, who write that these meetings are the “nerve center of the global body politic.” Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: Penguin, 2004), 167.

⁸ “Imperial” involves networked power that works through supranational organizations and other powers, while “imperialist” is an extension of state sovereignty over new territories. See Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000), xi–xvii. For more on what “Americanization” is, how it works, and why it is or is not important, see Reinhold Wagnleitner, *Coca-Colonization and the Cold War: The Cultural Mission of the United States in Austria after the Second World War* (Chapel Hill: University of North Carolina Press, 1994); Uta Poiger, *Jazz, Rock, and Rebels: Cold War Politics and American Culture in a Divided Germany* (Berkeley: University of California Press, 2000); and John Krige, *American Hegemony and the Postwar Reconstruction of Science in Europe* (Cambridge, MA: MIT Press, 2006).

⁹ Krige, *American Hegemony*, 5.

¹⁰ European Commission, “eEurope: An Information Society for All,” Communication on a Commission Initiative for the Special European Council of Lisbon, March 23–24, 2000, <http://europa.eu/scadplus/leg/en/lvb/l24221.htm>.

¹¹ My language abilities (English, German, and some French) have limited my research capabilities. In an attempt to include countries whose languages I do not speak or do not speak well, I relied on either translations of news reports and policies, when available, or public and/or technological structures (e.g., the Minitel and the Digital City) as cultural texts.

¹² Wagnleitner, *Coca-Colonization*, 2.

¹³ See Ithiel de Sola Pool, *Technologies without Boundaries: On Telecommunications in a Global Age*, ed. Eli M. Noam (Cambridge, MA: Harvard University Press, 1990), 214–15.

¹⁴ This same “universal service” policy in the U.S. in the early 1900s built AT&T into a government-supported “natural monopoly.” See Jonathan E. Nuechterlein and Philip J. Weiser, *Digital Crossroads: American Telecommunications Policy in the Internet Age* (Cambridge, MA: MIT Press, 2005), 14.

¹⁵ Leslie Simon, *NetPolicy.Com: Public Agenda for a Digital World* (Washington, DC: Woodrow Wilson Center Press, 2000), 159.

¹⁶ See Jay G. Blumler, *Television and the Public Interest: Vulnerable Values in West European Broadcasting* (London: Sage, 1992).

¹⁷ David Carlson, "The Online Timeline—The 1980s," David Carlson's Virtual World, <http://iml.jou.ufl.edu/carlson/1980s.shtml> (accessed January 3, 2008).

¹⁸ See Shlomo Maital, "The Global Telecommunications Picture: Is America Being Outstripped? By France?" *Brookings Review* 10 (1992): 40–44. For more on the Minitel, see Howard Rheingold, "Télématique and Messageries Roses: A Tale of Two Virtual Communities," in *The Virtual Community: Homesteading on the Electronic Frontier* (New York: HarperPerennial, 1994), 231–53.

¹⁹ In 1997, Al Gore credited private-sector leadership for the explosive growth of the internet. President William J. Clinton and Vice President Albert Gore, Jr., "The Framework for Global Electronic Commerce," White House, July 1, 1997, <http://clinton4.nara.gov/WH/New/Commerce/>.

²⁰ Simon, *NetPolicy.Com*, 338.

²¹ See Philip Schlesinger, "Tensions in the Construction of European Media Policies," in *Media and Globalization: Why the State Matters*, ed. Nancy Morris and Silvio Waisbord (New York: Rowman & Littlefield, 2001), 95–115.

²² For more on pornography in postcards, see Lisa Z. Sigel, "Filth in the Wrong People's Hands: Postcards and the Expansion of Pornography in Britain and the Atlantic World, 1880–1914," *Journal of Social History* 33, no. 4 (2000): 859–85. For pornography in film, see Eric Schaefer, "Gauging a Revolution: 16 mm Film and the Rise of the Pornographic Feature," in *Porn Studies*, ed. Linda Williams (Durham, NC: Duke University Press, 2004), 370–400. For pornography in general media, see Brian McNair, *Mediated Sex: Pornography and Postmodern Culture* (New York: Arnold, 1996).

²³ Steven E. Miller, *Civilizing Cyberspace: Policy, Power, and the Information Superhighway* (Reading, MA: Addison-Wesley, 1996), 243.

²⁴ See Maital, "Global Telecommunications Picture," 40–44; and Everett Rogers, "Diffusion Networks," in *Networks in the Knowledge Economy*, ed. Robert L. Cross, Andrew Parker, and Lisa Sasson (New York: Oxford University Press, 2003), 169–71.

²⁵ Schlesinger, "Tensions in the Construction," 109.

²⁶ CompuServe was one of the main internet providers in the mid-1990s before it was purchased by AOL in 1998. In 1995, it provided internet access to over four million subscribers in 140 countries. John Markoff, "On-Line Service Blocks Access to Topics Called Pornographic," *New York Times*, December 29, 1995.

²⁷ For a summary of this case, see Jack Goldsmith and Tim Wu, *Who Controls the Internet? Illusions of a Borderless World* (New York: Oxford University Press, 2006), 73–74. Also see newspaper coverage such as Karen Kaplan, "Germany Forces Online Services to Censor

Internet,” *Los Angeles Times*, December 29, 1995; Ruth Walker, “Why Free-Wheeling Internet Hit Teutonic Wall over Porn,” *Christian Science Monitor*, January 4, 1996; Kara Swisher, “Cyberporn Debate Goes International; Germany Pulls the Shade on CompuServe, Internet,” *Washington Post*, January 1, 1996; and Jon Auerbach, “Fences in Cyberspace: Governments Move to Limit Free Flow of the Internet,” *Boston Globe*, February 1, 1996.

²⁸ Goldsmith and Wu, *Who Controls the Internet*, 73–74.

²⁹ Paul Taylor, “Internet Groups Suspended over Pornography Fears,” *Financial Times* (London), December 29, 1995.

³⁰ Joel R. Reidenberg, “Governing Networks and Rule-Making in Cyberspace,” in *Borders in Cyberspace: Information Policy and the Global Information Infrastructure*, ed. Brian Kahin and Charles Nesson (Cambridge, MA: MIT Press, 1997), 97.

³¹ David R. Johnson and David G. Post, “The Rise of Law on the Global Network,” in Kahin and Nesson, *Borders in Cyberspace*, 7–8.

³² Markoff, “On-Line Service Blocks Access.”

³³ Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge, MA: MIT Press, 1994), 7.

³⁴ See “Internet Wires the Planet for Computer Users,” *St. Petersburg Times*, May 23, 1993; David Landis, “World Wide Web Helps Untangle Internet’s Labyrinth,” *USA Today*, August 3, 1994; Vic Sussman and Kenan Pollack, “Gold Rush in Cyberspace,” *U.S. News and World Report*, November 13, 1995; John Markoff, “The Executive Computer; A Web of Networks, an Abundance of Services,” *New York Times*, February 28, 1993; John Markoff, “A Free and Simple Computer Link,” *New York Times*, December 8, 1993; Mary Lu Carnevale, “World Wide Web,” *Wall Street Journal*, November 15, 1993; Bob Metcalfe, “On Surfing the Internet and Other Kid’s Stuff,” *InfoWorld*, November 1, 1993, 67; Ed Krol, “Internet’s Web Is Doing Just Fine, Thank You,” *Network World*, April 19, 1993, 31; and Robert O’Harrow Jr., “Computer-Friendly Homes Increasing; Electronic Bulletin Boards Provide Many Residents with Comfort, Communication,” *Washington Post*, December 27, 1992.

³⁵ For examples of extension-focused news reports, see “Gnaedige Frau, Darf Ich Ihnen Meinen Cyber Zeigen?” *Frankfurter Allgemeine Zeitung*, March 10, 1997; Michael Mertes, “Das Netz als Globales Dorf oder Metropolis,” *Welt am Sonntag*, April 19, 1998; “Publizieren im Cyberspace,” *Frankfurter Allgemeine Zeitung*, July 22, 1994; “Bibliotheken im Cyberspace: Grenzen der Digitalisierung,” *Frankfurter Allgemeine Zeitung*, September 25, 1996; “Unterwegs nach Suburbia,” *Frankfurter Allgemeine Zeitung*, January 22, 1996; “Kaufhaus von Morgen; plus Computer E-Commerce Globale Shopping-Center sind Nur einen Mausklick vom Kunden Entfernt. Firmen Erhoffen sich vom Handel über Datennetze Fette Gewinne,” *Stern*, March 19, 1998, 137; Martin Hill, “Cyberspace Echoes to World’s Call for Peace,” *Belfast Telegraph*, February 20, 1996; Nick Clayton, “Solicitors Set Up Shop in Cyberspace,” *Scotsman* (Edinburgh), February 18, 1998; Andrew Bibby, “A Phoenix Rises and Heads for Cyberspace,” *Independent* (London), February 13, 1995; Helen Jones, “Now You Can Surf the Net for a Job;

Cyberspace Now Offers Thousands of Opportunities,” *Independent* (London), April 18, 1996; and Gary Buchanan, “Simple, Low-Cost Ways to Make the Right Connections,” *Herald* (Glasgow), January 26, 1998. For examples of amputation-focused news reports, see “Cyberspace und der Amerikanische Traum,” *Frankfurter Allgemeine Zeitung*, August 26, 1995; “Der Kopf Schrumpft,” *Frankfurter Allgemeine Zeitung*, September 9, 1995; “Die verfluechtigte Materie,” *Frankfurter Allgemeine Zeitung*, October 4, 1995; “Datenautobahn als Eckpfeiler der Amerikanischen Technikpolitik,” *Frankfurter Allgemeine Zeitung*, January 25, 1994; “Mit zehn Gigabyte,” *Frankfurter Allgemeine Zeitung*, January 9, 1995; “Schnaepchen aus dem Internet,” *Focus Magazin*, July 29, 1996, 132–36; “Klassenkampf im Cybersp@ce,” *Focus Magazin*, October 7, 1996, 286–87; “Toedlicher Mausclick,” *Focus Magazin*, September 25, 1995, 192–94; “Per Fahrrad auf die Datenautobahn,” *Focus Magazin*, December 11, 1995, 142; Walter Dreher, “Gesellschaft: Ein Volk auf dem Ego-Trip,” *Focus Magazin*, July 31, 1995, 52–60; Marion Meiners, “Datennetze: Anarchie in Digitalien,” *Focus Magazin*, July 1, 1996, 134–35.

³⁶ “Internet—das Netz der Netze? Chaotische Strukturen und zunehmende kommerzielle Angebote Immer schneller webt die Spinne ihr Netz um die Welt. Noch lassen sich auf der Datenautobahn nur begrenzt Geschaeft machen / Probleme mit Datensicherheit und Tempo,” *Sueddeutsche Zeitung*, July 18, 1995.

³⁷ Jeanne Rubner, “Das Web ist das Ziel: Internet, Internat; Muessen Wirklich Alle Ans Netz?” *Sueddeutsche Zeitung*, December 17, 1997, translation mine.

³⁸ For more on American technological determinism, see Howard P. Segal, *Technological Utopianism in American Culture* (Chicago: University of Chicago Press, 1985); Raymond Williams, *Television: Technology and Cultural Form* (New York: Schocken, 1975); and Rudi Volti, *Society and Technological Change*, 2nd ed. (New York: St. Martin’s, 1992).

³⁹ See Christos J. P. Moschovitis, Hilary Poole, Tami Schuyler, and Theresa M. Senft, *History of the Internet: A Chronology, 1843 to the Present* (Oxford: ABC-CLIO, 1999), 76–80.

⁴⁰ David Gauntlett attributes the coinage of term *internet* in 1974 to Bob Khan, one of the scientists who invented internet technology while working for the Department of Defense. This date refers specifically to the term, but Gauntlett traces the first talk about the concept of an internet protocol (or network of networks that would link variously connected computers, including those time-sharing and connected to private intranet systems) back to 1962. See David Gauntlett, “Web Studies: What’s New,” in *Web.Studies: Rewiring Media Studies for the Digital Age*, ed. David Gauntlett and Ross Horsley, 2nd ed. (New York: Oxford University Press, 2004), 3–23. Available online as Gauntlett, “Introduction to the New Edition,” *New Media Studies*, <http://www.newmediastudies.com/intro2004.htm> (accessed July 10, 2007).

⁴¹ “Timeline of Computer History: Networking,” Computer History Museum, <http://www.computerhistory.org/timeline/?category=net> (accessed June 5, 2008).

⁴² Andrew D. Murray, *The Regulation of Cyberspace: Control in the Online Environment* (New York: Routledge-Cavendish, 2007), 35.

⁴³ To view an archived version from December 1996, see “De Digitale Stad,” Internet Archive Wayback Machine, <http://web.archive.org/web/19961219173901/http://www2.dds.nl/> (accessed March 5, 2008). The earliest archived version in the Internet Archive Wayback Machine is from 1996.

⁴⁴ “The Digital City Foundation,” Internet Archive Wayback Machine, <http://web.archive.org/web/19970618155059/www.dds.nl/dds/info/english/dds-engl.html> (accessed March 5, 2008).

⁴⁵ Carl Malamud, *A World’s Fair for the Global Village* (Cambridge, MA: MIT Press, 1997), 37–38.

⁴⁶ “The Digital City (Amsterdam),” Internet Archive Wayback Machine, <http://web.archive.org/web/19970618013045/www.dds.nl/dds/info/english/> (accessed March 5, 2008).

⁴⁷ “Digital City Foundation.”

⁴⁸ Shuschen Tan, “An Interview with Marleen Stikker,” trans. Patrice Riemens, *CTheory*, February 8, 1995, <http://www.ctheory.net/articles.aspx?id=65>. Originally published in Dutch in *Trouw* (Amsterdam), January 7, 1995.

⁴⁹ “Digital City Foundation.”

⁵⁰ The goal stated that “globalisation and automation put employment, and thereby the social cohesion of a society, under pressure” (ibid.).

⁵¹ Ibid.

⁵² This representation was also present in German newspapers. One article compares cybercafes in 1995 to Vienna cafes in 1895, ultimately deciding people engage in similar activities. “Postkarten per Internet. Im Kaffeehaus des 21. Jahrhunderts,” *Sueddeutsche Zeitung*, July 19, 1995.

⁵³ Tan, “Interview with Marleen Stikker.”

⁵⁴ Ibid.

⁵⁵ Employees of AOL’s previous incarnation “Quantum” thought the name was “a bit hokey” and “too patriotically red, white, and blue.” Kara Swisher, *AOL.com: How Steve Case Beat Bill Gates, Nailed the Netheads, and Made Millions in the War for the Web* (New York: Times Business/Random House, 1998), 55.

⁵⁶ Miller, *Civilizing Cyberspace*, 172.

⁵⁷ Moschovitis et al., *History of the Internet*, 183.

⁵⁸ AOL was sued in 2000 because of this software; the lawsuit alleged that AOL 5.0 prevented users from accessing internet sites and browsers. AOL settled for fifteen million dollars without admitting guilt. See the notice posted on “AOL 5.0 Litigation,” Garden City Group, March 27, 2002, <http://www.gardencitygroup.com/cases/fullcase/35>.

⁵⁹ Siva Vaidhyanathan, *Anarchist in the Library: How the Clash Between Freedom and Control Is Hacking the Real World and Crashing the System* (New York: Basic Books, 2004), 150.

⁶⁰ For more on the history and evolution of European identity, see David Levy, “Regulating Digital Broadcasting in Europe: The Limits of Policy Convergence,” *West European Politics* 20, no. 4 (1997): 24–42; Michael Moran and Tony Prosser, *Privatization and Regulatory Change in Europe* (Buckingham, PA: Open University Press, 1994); Ralf Rogowski and Charles Turner, *The Shape of the New Europe* (Cambridge: Cambridge University Press, 2006); Anand Menon and Martin Schain, *Comparative Federalism: The European Union and the United States in Comparative Perspective* (Oxford: Oxford University Press, 2006); Michelle Egan, *Constructing a European Market: Standards, Regulation, and Governance* (Oxford: Oxford University Press, 2001); Jeremy Richardson, ed. *European Union: Power and Policy-making*, 2nd ed. (New York: Routledge, 2001); and Harcourt, *European Union*.

⁶¹ This similarity was demonstrated even in the union’s name. The Maastricht Treaty of 1993—which created the European Union’s current legal framework—changed the official name from the “European Community” to the “European Union,” signifying a more “united states” model. European Community, “Maastricht Treaty on European Union,” signed in Maastricht, the Netherlands, February 7, 1992, *Eur. OJ C224/1* (August 31, 1992). See George A. Bermann, Roger J. Goebel, William J. Davey, and Eleanor M. Fox, *Cases and Materials on European Community Law* (St. Paul, MN: West, 1995), 14–19.

⁶² Harcourt, *European Union*, 161, citing Levy, “Regulating Digital Broadcasting”; and Moran and Prosser, *Privatization and Regulatory Change*.

⁶³ Christopher Watson and Tom Wheatdon, *Telecommunications: The EU Law* (Bembridge, Isle of Wight: Palladian Law, 1999), xiii.

⁶⁴ Harcourt, *European Union*, 3. Also see David A. Levy, *Europe’s Digital Revolution: Broadcasting Regulation, the EU and the Nation State* (New York: Routledge, 1999).

⁶⁵ Schlesinger, “Tensions in the Construction,” 95.

⁶⁶ The union was originally created to establish a single market for coal and steel. See Harcourt, *European Union*, 6.

⁶⁷ See Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983), 37–46.

⁶⁸ The U.S. is not linguistically homogenous, but cultural inclusion presumes English-language ability. For more on languages and the EU, see Rogowski and Turner, *Shape of the New Europe*, 37.

⁶⁹ Schlesinger, “Tensions in the Construction,” 103–4.

⁷⁰ See Peter T. Kirstein, “Early Experiences with the ARPANET and INTERNET in the UK,” University College London Department of Computer Science Networks Research Group, July 28, 1998, <http://nrg.cs.ucl.ac.uk/mjh/kirstein-arpamet.pdf>.

⁷¹ Ibid. Eventually, the Deutsche Bundespost, the postal service of West Germany, contracted with British Telecom to begin Germany's Bildschirmtext (or "screen text"), which became functional in the early 1980s. See Emanuele Giovannetti, Mitsuhiro Kagami, and Masatsugu Tsuji, eds. *The Internet Revolution: A Global Perspective* (Cambridge: Cambridge University Press, 2003), 126.

⁷² "Die Bundesregierung," Presse und Informationsamt der Bundesregierung, <http://www.bundesregierung.de/Webs/Breg/DE/Homepage/home.html>. To view an archived version from October 1996, see "Die Bundesregierung informiert," Internet Archive Wayback Machine, <http://web.archive.org/web/19961019114748/http://www.bundesregierung.de/> (accessed September 17, 2007).

⁷³ The White House website featured a box where users could search press releases. See the archived version from December 1996 at "Search White House Press Releases, Radio Addresses, Photos and Web Pages," Internet Archive Wayback Machine, <http://web.archive.org/web/19961227062541/http://www3.whitehouse.gov/> (accessed April 23, 2008).

⁷⁴ In the same year, the EU launched a seven-year program designed to promote European collective culture. For more on the history of the internet in Europe, see Lawrence G. Roberts, "The Evolution of Packet Switching," *Proceedings of the IEEE* 66, no. 1 (1978), <http://www.packet.cc/files/ev-packet-sw.html>.

⁷⁵ European Commission, "eEurope," 2.

⁷⁶ In 1999, the U.S. had 25 internet hosts per 1,000 inhabitants, compared to 5 in the UK, 4 in Japan, 3 in Germany, and 3 in France. Giovannetti et al., *Internet Revolution*, 126–27.

⁷⁷ U.S. firms provided "whole programming packages including scheduling and space for the insertion of commercial breaks." Harcourt, *European Union*, 211.

⁷⁸ Giovannetti et al., *Internet Revolution*, 136.

⁷⁹ The publication of the "White Papers" in the 1990s marked the European Community's focus on new technology. See Martin Bangemann et al., High-Level Group on the Information Society, "Europe and the Global Information Society: Bangemann Report Recommendations to the European Council," European Commission, May 1994, <http://ec.europa.eu/idabc/servlets/Doc?id=18174>. For more on the "harmonization directives," see Harcourt, *European Union*, 11–15.

⁸⁰ Council of the European Union, "Council Resolution on the Implementation of the eEurope 2005 Action Plan," January 28, 2003, 4, http://ec.europa.eu/information_society/eeurope/2005/doc/all_about/benchmarking/resolution.doc.

⁸¹ European Commission, "eEurope Benchmarking Report," Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, May 2, 2002,

http://ec.europa.eu/information_society/eeurope/2002/news_library/new_documents/benchmarking/benchmarkin_en.pdf. EU household internet penetration increased from 18% in March 2000 to 28% in October 2000 to 36% in June 2001 and to 38% in December 2001 (4). Average costs decreased “continuously and substantially” between 1999 and 2001 (6). In May 2001, 80% of EU schools were online (10).

⁸² European Commission, “eEurope,” 2. Also cited in Giovannetti et al., *Internet Revolution*, 124–42.

⁸³ The Bangemann Report was the origin of the term. Bangemann et al., “Europe and the Global Information Society.”

⁸⁴ European Commission, “eEurope,” 4.

⁸⁵ As Anderson has noted, media are intricately involved in the formation of national identity. Anderson, *Imagined Communities*, 37–46.

⁸⁶ The information superhighway metaphor is also used in Europe; for example, the internet is called the “Datenautobahn” (or the “data-highway”) in Germany. However, German and British papers began using the term in the early 1990s originally only in reports about U.S. information superhighway policies. For example, see “Datenautobahn als Eckpfeiler”; “Ein Hochgeschwindigkeitsnetz fuer Daten als Milliarden-geschaefte,” *Frankfurter Allgemeine Zeitung*, September 17, 1993; “Time to Join the Super-highway,” *Sunday Times* (London), October 17, 1993; Susana Antunes, “U.S. Phone Giants Line Up for Global ‘Superhighway’ Race: The Telecommunications Industry Is Going through Major Changes,” *Evening Standard* (London), October 15, 1993; Bailey Morris, “In Washington: Crossed Wires on Telecoms,” *Independent* (London), August 15, 1993; Lauren Chambliss, “Superhighway to a Revolution: American View,” *Evening Standard* (London), April 22, 1993; and Mark Tran, “American Notebook: Clinton Aims to Act as Catalyst for Information Superhighway,” *Guardian* (Manchester), April 13, 1993.

⁸⁷ European Commission, “The eEurope 2005 Action Plan: An Information Society for Everyone,” Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, May 28, 2002, <http://europa.eu/scadplus/leg/en/lvb/l24226.htm>.

⁸⁸ “Der Goldrausch im Cyberspace,” *Sueddeutsche Zeitung*, November 11, 1995, translation mine. Also see “Internet—das Netz der Netze?”

⁸⁹ Harcourt, *European Union*, 9.

⁹⁰ Harcourt, *European Union*, 3, citing Levy, *Europe’s Digital Revolution*, which argues technology is a driver; and Peter J. Humphreys, *Mass Media and Media Policy in Western Europe* (Manchester: Manchester University Press, 1996), which argues its limitations.

⁹¹ According to Joel Reidenberg, “in effect, network users become stakeholders in transnational political and economic communities.” Reidenberg, “Governing Networks,” 98.

⁹² President William J. Clinton and Vice President Albert Gore, Jr., “Remarks by the President and the Vice President to the People of Knoxville on Internet for Schools” (speech, Knoxville Auditorium Coliseum, Knoxville, TN, October 10, 1996).

⁹³ The National Telecommunications and Information Administration (NTIA) of the Department of Commerce, and the Assistant Secretary of Commerce and technology advisor to the Clinton administration conducted a series of NTIA surveys in 1995, 1998, 1999, and 2000. See National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce, *Falling Through the Net: Defining the Digital Divide*, July 8, 1999, <http://www.ntia.doc.gov/ntiahome/fttn99/contents.html>. Specifics on these surveys are available in the section titled “Methodology.”

⁹⁴ A report from the U.S. Department of Commerce, based on December 1998 census data, revealed that “better educated Americans [are] more likely to be connected,” “the gap between high- and low-income [and urban and rural] Americans [is] increasing,” and “whites [are] more likely to be connected than African-Americans or Hispanics.” U.S. Office of the Press Secretary, “The Clinton-Gore Administration: A National Call to Action to Close the Digital Divide,” White House, April 4, 2000, <http://clinton4.nara.gov/WH/New/html/20000404.html>.

⁹⁵ NTIA, “Falling Through the Net,” in Part III, entitled “Challenges Ahead.”

⁹⁶ Press Secretary, “The Clinton-Gore Administration.”

⁹⁷ See John Schwartz, “U.S. Cites Race Gap in Use of Internet; Clinton Bemoans ‘Digital Divide,’” *Washington Post*, July 9, 1999; Ariana Eunjung Cha, “Initiatives Outlined for ‘Digital Divide,’” *Washington Post*, December 10, 1999; Marc Lacey, “Clinton Enlists Top-Grade Help for Plan to Increase Computer Use,” *New York Times*, February 3, 2000; Martha Woodall, “Technology’s Have-Nots, From 2 Views: President Clinton Called for More Internet Access, While at Penn Came Talk of Places Where Phones are Foreign,” *Philadelphia Inquirer*, December 10, 1999; Marc Lacey, “Clinton to Seek U.S. Subsidies to Help the Poor Get Online,” *New York Times*, January 22, 2000; Steve Lohr, “A Nation Ponders Its Growing Digital Divide,” *New York Times*, October 21, 1996; Tamara Henry, “Schools, Libraries in Line to Be Online with Help of \$2 Billion, All in USA Expected to Be Linked to Net by 2000,” *USA Today*, March 1, 1999; Sylvia Moreno, “President Aims to Leap the ‘Digital Divide’; In Visit to SE School, Clinton Vows to Close the Gap Between the High-Tech Haves and Have-Nots,” *Washington Post*, February 3, 2000; Jeff Biggers, “Computers for All? Many Can’t Use Them,” *USA Today*, January 27, 2000; and Gary Andrew Poole, “A New Gulf in American Education, the Digital Divide,” *New York Times*, January 29, 1996.

⁹⁸ Press Secretary, “The Clinton-Gore Administration.”

⁹⁹ Poole, “New Gulf in American Education.”

¹⁰⁰ Press Secretary, “The Clinton-Gore Administration.”

¹⁰¹ By “Y2K,” I mean the anticipated computer meltdowns when 1999 turned to 2000 because many computer programs were written using two-digit year codes (e.g., 99 for 1999). For more on how the government imagined this scenario playing out, see Michael Powell, C. Michael Armstrong, and Marsha J. MacBride, *Y2K Communications Sector Report* (prepared by the Federal Communications Commission in conjunction with the Network Reliability & Interoperability Council, Washington, DC, March 30, 1999). Available online at [http://www.wutc.wa.gov/webdocs.nsf/b8da29aede8fdd67882571430005a9c1/c1cf57ff131085ca88256744007e1440/\\$FILE/Y2kcsr.pdf](http://www.wutc.wa.gov/webdocs.nsf/b8da29aede8fdd67882571430005a9c1/c1cf57ff131085ca88256744007e1440/$FILE/Y2kcsr.pdf).

¹⁰² Pippa Norris, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide* (Cambridge: Cambridge University Press, 2001), 233.

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