The web as exception: The rise of new media publishing cultures
Stevenson, M.P.

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So far, I have discussed cyberculture as an influential discourse on the significance and effects of new media, one which made it possible to think of the web as an exceptional medium - as a medium that would displace mass and mainstream predecessors while displaying unique characteristics reflecting its underlying nature. Understood as cyberspace, the web was a pure information space that freed its users from real-world constraints and a virtual realm that would paradoxically allow for more organic forms of community, identity and enterprise. Cyberculture should also be seen in light of the characteristic media form of its most prominent expressions, the cool tech-culture magazine: in chapter 2, I argued that Mondo 2000’s techno-transcendental rupture-talk was simultaneously an ambivalent discourse on the changing conditions for underground and subcultural production. This ambivalence informed Mondo’s own position as “insider outside,” a subcultural actor aware of its implication in what it saw as the inevitabilities of commercial logics, institutional forces and media saturation, and provided a foundation (or ethos) for the magazine’s ironic, irreverent style - what I called Mondo’s ‘new media cool.’ Having explored the roots of web exceptionalism, now I turn to three case studies, each of which may be seen to extend elements of cyberculture, as well as the dynamic in which rupture-talk is inscribed in specific media practices, technologies and forms. The first of these revisits Wired’s creation of HotWired, a separate publication that would extend the Wired brand onto the web, and, according to its creators, mark the arrival of a “new publishing paradigm.”

3.1 Introduction: “Mediasaurus”

In 1993, the release of the Mosaic browser and the subsequent growth of the World Wide Web directed the attention of national media to the new technology, and served as impetus for high-profile discussions of its future. In a New York Times article that for many gave first notice of computer networking’s “killer app,” John Markoff described Mosaic as a free and open alternative to paid online services, and a massive opportunity for advertisers and publishers in the emerging multi-media industry. The article quotes Tim O’Reilly, who called it “the future of on-line publishing” and Electronic Frontier Frontier co-founder Mitch Kapor, who likened it to “C-Span for

1 Behlendorf, 1994.
2 Markoff, 1993.
everyone.”³ Two years later, after Netscape had created the first commercial browser and the ‘walled garden’ services America Online, Compuserve and Prodigy began to grant users access to the web (lest they cancel their subscriptions), this promise had been fulfilled. The web was declared mainstream and was recognized as a mass medium like print and television, one that would “take a place alongside [its predecessors] as a social, cultural and economic force in its own right.”⁴

For some, however, such bold assertions about the web did not go far enough: rather than extend the reaches of the existing publishing industry into the online world, the web would instead bring about the collapse of traditional media. In their place, a new wave of publishers would match the speed and diversity inherent to the new technology, rather than serve uniform content to the lowest common denominator. This argument was forwarded most visibly by Wired magazine, where publisher Louis Rossetto and executive editor Kevin Kelly cultivated an image of a deep knowledge of new digital technologies and their effects. In a feature article entitled “Mediasaurus” in the magazine’s fourth issue, Michael Crichton lamented the “crossfire syndrome” in journalism and stated that “what we now understand as the mass media will be gone in the next ten years.”⁵ Though Wired would become known for its ability to contradict itself from one issue to the next - an effect of its irreverent style and studied contrarianism - one constant was this sense of impending radical change in the sphere of media culture. In the magazine’s first editorial, Rossetto had set out as its mission to document the digital revolution “while mainstream media is still groping for the snooze button.”⁶ And as momentum grew around the web and Mosaic, with commercial applications and publications in development, the magazine held firm in this belief and loudly stated it would now go a step further. Wired promised to institute “a new publishing paradigm for a new medium,” and plans for HotWired - a Wired-branded web publication, or “a start-up within a start-up” - began to take shape in early 1994.⁷ Mosaic’s sudden success had mirrored that of the magazine, and in January Wired received a large infusion of cash from a deal with the publishing

³ ibid.


⁷ Behlendorf, 1994; Andrew Anker, interview, 2010.
company Condé Nast. Rossetto assembled an editorial team including Howard Rheingold, who had recently written *The Virtual Community*, and HotWired went live in October.

HotWired, which began as a single website but grew to incorporate a number of sites and separate publications, would play a central role in the history of Wired’s spectacular but unsuccessful bid to build a multi-media publishing empire, a sequence of events that form the basis of Gary Wolf’s book *Wired: A Romance*. Wolf, who wrote for the magazine early on and was later HotWired’s executive editor, positions Rossetto as an outsider who beat the odds to fulfill a grand vision - an independent publishing success story rivaling that of Rolling Stone - only to fall victim to a cruel mix of chance and overzealous decision-making. As an ever-expanding HotWired drained their resources, Rossetto and Metcalfe tried but failed to take the company public and, under pressure from all sides, were forced to sell in 1998. And in this respect, Wolf’s book can be read as a rumination on the dot.com boom from the inside out: mixing heavy doses of youthful energy and idealism with shrewd business deals, HotWired typified the 1990s “cart before the horse” start-up.

At the same time, Wolf’s narrative is closely tied to another one, on the early development and adoption of the World Wide Web as a publishing and publicity medium - as opposed to, say, the hypertext alternative to information management originally envisioned by Tim Berners-Lee. HotWired, despite the financial troubles and various poor business decisions documented by Wolf and other observers, takes up a unique and significant place in web history: as one of the first publications created exclusively for the web, as the first site to feature ad banners and as the birthplace of a range of other conventions in web publishing and design. Beyond such milestones, I will argue, it served as a “network forum” that brought together diverse actors central to the web’s discursive and technical development, while also bridging traditional and web publishing paradigms. That is, HotWired provided a space for key debates about the web as a medium, how it related to other media and media industries, and how it would or should function.

For as much as Wired touted a deep and absolute knowledge of new media in its editorials and press releases, among those who worked for the magazine or followed it closely it was clear

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9 Proposing the then untitled project, Berners-Lee said the purpose of the Web was to create an information structure that reflected the actual day-to-day running of the European Organization for Nuclear Research (CERN), which was collaborative and “organic,” and thus in opposition to the rigid bureaucratic structure imposed on it. Berners-Lee, Tim. 1989. “Information Management: A Proposal”. CERN. http://www.w3.org/History/1989/proposal.html.


that inside Wired and HotWired this knowledge was fragmented and disputed. Debates about the nature and future of new technology were not just welcomed but necessary at the magazine, where Rossetto and Kelly encouraged strong points of view from the writers. However at HotWired, these debates quickly became entangled with issues of advertising and business models, editorial vision and control, and a number of key production and design decisions. Rheingold and HotWired producer Jonathan Steuer famously fell out with Rossetto, and both left soon after the site launched. At stake were two issues that resonate with contemporary debates surrounding Web 2.0. First, there was the question of how the site should be commercialized, and whether requiring users to register would violate norms of privacy and openness. Second, a number of arguments revolved around how much prominence would be given to user contributions, with Rheingold and Steuer favoring a model that was equal parts publication and public forum, and Rossetto resisting any features that downplayed Wired’s editorial voice. As Jennifer Cool argues, the vision of user-led community that Rheingold and Steuer offered has in some ways been realized with the introduction of “social media,” from blogging to social network sites.12

What was perhaps even more prescient, however, were the terms on and with which the HotWired debate took place: in terms of its content, the case bears a strong resemblance to current discussions of the value of user-generated content and the role of traditional gatekeepers in media and journalism.13 More subtly, one also sees similarities in the form the debate took, where the question was only partly how to import Wired onto the web, and just as often posed in terms of what the medium required, wanted or deserved. Appealing to the identity of the web was the central rhetorical convention, in other words, just as it is now with the term “Web 2.0.” Ideas about the shape and significance of an impending new media landscape not only informed the design and content of HotWired early on, but continued to resonate in the construction of a number of the “sister sites” that were developed later. Most significantly, these foundational debates were extended by Suck.com, a site created anonymously by two HotWired employees who combined cynical humor and cultural criticism in daily essays about the growing industry of web production. Like HotWired, Suck offered a vision of what the web was for - a vision formulated largely in terms of an oppositional relationship to older media forms and existing media industry - at the same time that it helped create formal and stylistic conventions that would, in turn, be interpreted as web-native.


This chapter draws on historical accounts, primary source material and contemporaneous secondary sources, interviews with former Wired and HotWired employees as well as privately and publicly archived communications among participants to explore how the web was imagined by those working at the magazine and its online spin-off, the cultural and historical contexts of these conceptual models of the web and their manifestation in the design, editing and production of HotWired and various affiliated sites such as Netizen, Webmonkey and Suck from 1994 to 1997. The period ends with HotWired’s ‘reboot’ after which it would focus exclusively on “web culture” and just before Rossetto lost control of the company. The guiding question, then, is ‘What is the web for?’ and the approach is to analyze how various answers to it became centrally involved in HotWired’s creation and evolution.

In tracing this brief genealogy of the web’s purpose and its inscriptions in editorial practices at HotWired - that is, its rupture-talk and web-native culture - I look to unpack (along with Jennifer Cool) the histories of current uses of the web, arguing that “social media” and notions of participatory culture, as well as the debates that surround these, can to some extent be traced back to Wired’s attempt to establish a “new publishing paradigm for a new medium.” However, I also argue that it is a mistake to accept the assumption embedded in Web 2.0 discourses that participation and publishing are diametrically opposed, an assumption that plays into how one reads the HotWired debates 20 years later. Finally, I conclude by discussing how one might theorize the agency of web exceptionalism in terms of Actor-network theory.

### 3.2 HotWired’s producer culture: The Whole Earth, Wired and Cyborganic

In the short period between the public release of the NCSA Mosaic browser in November 1993 and Wired’s announcement of a separate web publication in May 1994, it became clear that the World Wide Web’s growth posed a significant challenge to existing commercial computer networking services such as AOL and Prodigy, and also that large media organizations such as Time-Warner would soon begin experimenting with publishing on the web. However, these facts alone do not explain the decision at Wired to create a separate web initiative (as opposed to an online version of the magazine), nor the site’s fantastic description as “a cyberstation, a suite of vertical content streams about the Digital Revolution and the Second Renaissance with an integrated community

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15 Behlendorf, 1994; Cool, 2008.
space.”\footnote{HotWired FAQ, reprinted in Thomas, Owen. 2008. “Wired Relaunching HotWired as a Social Network?” Gawker. http://gawker.com/5017019/wired-relaunching-hotwired-as-a-social-network.} After all, Netscape’s Initial Public Offering, generally seen as the watershed moment in the public realization of the web’s importance, was still more than a year away. Nor is it possible to trace the decision to the singular actions or insights of any particular actor, though of course Rossetto would ultimately pull the trigger. Instead, to understand the decision and its significance one has to look at key contextual factors that made the idea that the web would transform media production and consumption seem to be an obvious fact: first, the magazine’s position in a network of actors concerned with the economics, politics and culture of technology, especially writers and thinkers associated with the Whole Earth publications and the electronic conferencing system the WELL; second, the relationship forged between the digital utopianism of the Whole Earth network and Wired’s media culture, which was epitomized by Rossetto’s passionate critiques of mass media and the traditional publishing industry; and third, the establishment of Wired’s online division, which was part of a larger Bay Area network of young software developers and designers who saw in the web an opportunity to combine Whole Earth-style community with commercial enterprise.

3.2.1 Extending the Whole Earth network

Although Wired was conceived as “a reverse time capsule” that would perplex its readers, the strange future it depicted was in fact one that resonated strongly with the cultural contexts and historical trajectories that contributed to the magazine’s emergence.\footnote{Wolf, 2003: 67.} Like its predecessor Mondo 2000, Wired’s message was clearly one that can be described as rupture-talk: in the first editorial, Rossetto wrote that the “digital revolution is whipping through our lives like a Bengali typhoon.” Wired published story after story about how digital technology was set to transform long-standing institutions from education and government to journalism and the music industry. These articles oscillated between utopian and dystopian futures, but the common argument was that - if unleashed from industrial-age thinking and government regulation - information technology would be a subversive and powerful source of individual freedom, economic prosperity and progressive social and cultural change. With this, Wired made digital technology cool, an image that stood in stark contrast to previous notions of the computer as a grey instrument of state and corporate power. But as argued in chapter 1, this cybercultural utopianism did not appear suddenly or as a consequence of advances in technology. Rather, it represented the extension of a history in which the cultural meanings of information technology and the computational metaphor were transformed by
members of the counterculture. Stewart Brand and others who Fred Turner calls “New Communalists” incorporated hi-technology and systems thinking into their efforts to create self-sufficient, non-hierarchical communes that would form an alternative to what they saw as mainstream society’s cold institutional logic and suppression of individuality. In the Whole Earth Catalog, Brand’s publication that stood at the center of the New Communalist movement, technology was perceived not as an alienating force, but as a tool for a return to more natural forms of co-existence. With the Catalog and later “network forums,” Brand helped create and reveal common ground among the values and sensibilities of hippies and engineers, hackers and entrepreneurs.

As Turner argues, in one sense Wired must be seen as an extension of the Whole Earth network. Kevin Kelly, who edited the Whole Earth Review before joining Wired, brought with him contacts in the Bay Area and writers such as Bruce Sterling, William Gibson and Howard Rheingold. Early investors in the magazine were found in the Global Business Network, the consultancy group founded by (among others) Peter Schwartz and Stewart Brand. And one of Wired’s first moves, before putting together a prototype, was to create a presence on the WELL. Beginning in May 1992, Kelly and Wired’s first employee, Will Kreth, began using the forum (or ‘conference,’ in the WELL’s terminology) to solicit ideas for the magazine and post job announcements and press releases. The WELL, understood in Howard Rheingold’s terminology as a virtual incarnation of the public sphere, in Wired’s case was more accurately a hybrid space of publicity, internal and “intra-” communication, customer feedback and criticism. Wired’s brand was not simply extended into the conference, and yet its use of the WELL was promotional to the extent that it sought to create a strong bond between Wired and the WELL’s users, who were to be given a sense of ownership of the magazine. This strategy appeared to be successful when, after the first issue was published, reactions trickled and then poured in, and WELL users congratulated the editors and offered constructive criticism (much of which related to the readability of the design and the magazine’s technical production). The conference was also not designed for internal communication, however it served as a platform for connecting editors with the many part-time contributors who wrote for Wired. When one writer took to the WELL to ask if others were having trouble getting paid on time, Kevin Kelly responded with an apology and noted that had the complaint gone through the normal channels it would have taken much longer to reach his attention.

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18 Turner, 2006: 212.

19 In the first post to the Wired conference on the WELL, Will Kreth wrote that the “topic is a unique opportunity for you to help design a radically different kind of computer magazine.” Kreth, Will. 1992. “Wired on the Well (inna Muchomedia Style).” The WELL. May 15.
With tongue only partially in cheek, Kelly called the practice of complaining publicly on the WELL rather than directly to Wired an example of “community journalism.” For him, instances like these were proof that technology such as the WELL was creating new forms of social interaction and cultural expression even if (following Turner) a more plausible explanation was that the WELL was reproducing existing modes of work and networks of collaboration that had characterized the Whole Earth world and that of Cold War researchers before it. In another post, Kelly listed the WELL itself as one of Wired’s influences: “I’d like the mag to learn from this medium, if it can.”

3.2.2 “Get Wired”: publicity culture and media criticism

If Wired’s conference on the WELL symbolizes its connection to a longer history of cybernetics-inspired counterculture, however, its contents also suggest how the magazine departed from this genealogy. Alongside a number of enthusiastic responses, the reaction on the WELL to Wired’s premiere issue included the first signs of backlash. Within days, the WELL recorded examples of the basic form of criticism that would be leveled at Wired for years to come: that the magazine’s loud design and overall sense of urgency, or hype, far exceeded the actual novelty or importance of the events it covered. “Who cares if it communicates, as long as it’s Hip.” Such comments weren’t incidental but rather directly related to Wired’s self-conscious, avant-garde aesthetic, which was apparent not only in the magazine’s design but also its editorial, where it actively sought to make bold claims about the societal and cultural effects of technology. It was this same style and high production values that Kevin Kelly believed were missing from the Whole Earth publications, and that convinced him to become Wired’s executive editor. However this was not simply a matter of scaling up or embellishing the Whole Earth discipline, and can instead be understood in light of the specific articulation of technological culture in Wired, especially its conflation with a discourse of media criticism.

On the one hand, Wired’s early editorial direction can be seen as part of a more general glamorization of computing technology and the subcultures around it in media portrayals in the 1980s and early 1990s. At around the same time that Mondo 2000’s R.U. Sirius began mixing technology with popular culture in High Frontiers (in 1984) and Reality Hackers (1988), Louis

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Rossetto launched Language Technology (1987, later renamed Electric Word), an Amsterdam-based publication that stood out with its bright computer graphic covers. Looking back, Rossetto describes Language Technology as a prototype for Wired where he and Jane Metcalfe learned the basics of publishing.\(^{24}\) Even early on, though, it anticipated Wired’s editorial focus: one feature article was entitled “La vie en rose -- Cruising for love online in France,” and others would include profiles of hackers and writers that Rossetto considered part of the digital elite.\(^{25}\) Casting technology “gurus” as celebrities become one of Wired’s defining elements. In its first year, Wired’s covers featured Bruce Sterling, a group of anonymous hackers, Alvin Toffler and Peter Gabriel. The presence of Gabriel (and to some extent Sterling, the science fiction author) reflects the related move of framing cultural icons as part of a technological movement. Rossetto often said he wanted Wired to emulate Rolling Stone, and saw an analogy between the rock stars of the 1960s and the technology gurus of the 1990s.\(^{26}\) The comparison was shorthand for Wired’s identity vis-a-vis existing computer magazines, and therefore featured prominently in its early press material: “If Rolling Stone covered music the way computer magazines cover the information society, it would be full of stories about amps and wah-wah pedals [...] Wired’s main focus is not boxes, but the people, companies and ideas creating the Digital Revolution.”\(^{27}\) The comparison, however, neglects a key element of the cool new media culture promoted by Wired. Readers of a magazine like Rolling Stone could identify with a subcultural milieu that inverted or opposed the norms, procedures and technologies of mainstream society. Knowledge workers reading Wired, on the other hand, were presented with “intra-culture,” where the technologies that constituted their everyday work environment were themselves imbued with rebel cool.\(^{28}\) They could identify with the “outsiders inside” of new media industry, who were poised to dramatically alter the social, cultural and economic structures of corporate, mainstream America from within.\(^{29}\)

Efforts to define digital technologies as cultural phenomena worked in tandem with another of Wired’s key editorial practices, which was to push boundaries in terms of journalistic norms and


\(^{25}\) ibid.


\(^{28}\) Liu, 2004; see chapter 2 for a discussion of Liu’s analysis of “information cool.”

\(^{29}\) ibid.
writing style - to operate outside the norms of what it saw as a dying mass media industry. The magazine had a boldly stated (if not always consistent) political outlook, especially in regards to issues of electronic freedom and privacy. Above all, Rossetto hammered on the need to present readers with a “point of view” and take strong stances on the subject material - in one infamous case, Gary Wolf portrayed hypertext inventor Ted Nelson as a befuddled academic who could no longer see the forest for the trees, and described Nelson’s Xanadu project as the preeminent example of undelivered software, or ‘vaporware.’\(^{30}\) (Soon after, Wired also took pleasure in publishing excerpts of Nelson’s lengthy response.) As a “writer’s magazine,” Wired sooner erred on the side of indulgence than caution - feature articles ran at a relatively modest 8,000 words in Wired’s first year, and would increase to 20,000 and more by 1995.\(^{31}\) The prominence given to authors was more literal at times, with many of the magazine’s glossy covers portraying the feature writers themselves.

While it may have represented a new direction for technology reporting, Wired’s approach consciously borrowed from the past. Specifically, Rossetto would reference New Journalism, the 1970s movement associated in part with Rolling Stone and spearheaded by writers like Tom Wolfe and Hunter S. Thompson. New Journalism used literary techniques to highlight a journalist’s role in a story, and in some cases brought the journalists a level of fame normally associated with best-selling fiction writers and others in the arts and in the entertainment industry.\(^{32}\) And as in Wolfe’s definition of New Journalism, Wired’s experimental style was clearly embedded in a normative critique of traditional news media, and posited that accuracy and integrity were not necessarily tied to journalistic norms of objectivity and equal representation of opposing viewpoints. It was in this sense that Rossetto demanded that writers present their views forcefully, and would later call HotWired’s approach “way new journalism.”\(^{33}\) If New Journalism was innovative for its conflation of literature and reporting, however, Wired seemed to draw on a different cultural mode, in particular the cuts and shocks of MTV-style television. On the one hand, this was apparent in the look of the magazine. Especially in its early years, under the direction of designers John Plunkett and Barbara Kuhr, Wired attempted to create a visual-textual gestalt that played with typographic and other publishing conventions, and received polarized reactions. As Alan Liu argues, this aesthetic drew on earlier publications (especially David Carson’s Ray-Gun), and amounted to a


\(^{31}\) Gary Wolf, interview 2010.


\(^{33}\) HotWired FAQ, reproduced in Thomas, 2008.
formal strategy of “anti-design,” in which communication is both effected and resisted in the same
move, putting the acts of information storage and transmission themselves on display.34 The
incorporation of the language of electronic media into Wired’s reporting was perhaps more subtle
but only marginally so: Wolf notes that when he commissioned election coverage in 1996, Rossetto
told the editor to cover it “as you would a car crash. Treat it as a spectacle.”35

Spectacular reporting and Wired’s interpretation of New Journalism, alongside the
conflation of technology with arts and media culture that corresponds to a Rolling-Stone-for-
computers, ultimately point to the centrality of a media discourse in Wired when compared to the
Whole Earth publications. From the perspective of Stewart Brand and the Whole Earth network,
independent publishing and other media were ‘tools,’ and thus fit into a larger universe of
heterogeneous objects that would empower the individual “to conduct his own education, find his
own inspiration, shape his own environment, and share his adventure with whoever is interested.”36
For example, the first Whole Earth Catalog organized the tools it promoted into the categories
Understanding Whole Systems, Shelter and Land Use, Industry and Craft, Communications,
Community, Nomadics and Learning.37 Wired, though its range was greater, often returned to the
theme of a digital revolution in the production and consumption of media. Early features included
Michael Crichton’s “Mediasaurus” and a special on the death of mass media advertising. “Barely a
month went by without some chart or essay or full-length feature in Wired that purported to show
how mainstream companies, and especially mainstream media companies, were dinosaurs headed
for extinction.”38 Another major influence in this regard was Wired’s columnist and first major
investor, Nicholas Negroponte, who speculated at length about the coming decline of mass media in
his monthly contributions, and the book he based on them, Being Digital.39 While both the later
Whole Earth publications and Wired were interested in how digital technologies would radically
change any number of industries and institutions, it is striking how much emphasis Wired put on the
revolution in media technology and media style, and by extension on the power of the existing
media industry and its conventions. So when, for example, Louis Rossetto argued that “the
mainstream media is not allowing us to understand what’s really happening today because it’s

34 Liu, 2004: 221-222.
35 Wolf, 2003: 158.
37 ibid.
obsessed with telling you, ‘Well, on the one hand’ and ‘on the other hand,’” he was not “simply aim[ing] to distinguish the magazine from its competitors,” but also giving voice to a belief that it was the media that played a determining role in society and that technology was in part a means to do media differently - a belief that would become more visible as he looked to expand Wired onto the web and elsewhere.\textsuperscript{40} Speaking to a crowd of new media artists and professionals in 1993, Rossetto compared the rise of new digital technologies to the advent of film and television and spoke about Wired’s plans: “There aren’t many times when you get to be a part of the birth of new media [...] I think one of the things that Wired and we are all about, is the opportunity that this presents to us as actors and designers of this future.”\textsuperscript{41}

Meanwhile, Wired’s overwhelming success in its first year, in terms of sold-out newsstands and industry accolades, had the unintended effect of highlighting a relative dearth of opportunity in the multi-media industry at the time.\textsuperscript{42} Before it became home to so many web start-ups, the South of Market Area (SOMA) in San Francisco where Wired was based was known as the Multi-Media Gulch, and numerous companies there were focused on publishing interactive CD-ROMs. Avenues for publishing online were limited at best. In addition to its presence on the WELL, Wired had a featured page on America Online, a Gopher site and some other computer networking projects. In late 1993, a few employees comprised a makeshift online division, which also functioned as a help desk. Jonathan Steuer, a Stanford PhD candidate studying virtual reality and an active member of San Francisco’s rave scene, brought insight into fledging technologies like the World Wide Web to Wired when he joined in the summer - his first task was to configure the company’s Internet connection and mail server.\textsuperscript{43} Will Kreth moderated the Wired conference on the WELL, while June Cohen managed the magazine’s America Online content.

None of these initiatives had much promise for commercial publishing, and with plenty of work to do as a result of the magazine’s quick success, Rossetto was content to remain focused on print for the time being. However, he also organized a series of regular, informal meetings to discuss both the status of Wired’s existing digital media projects as well as possible new ones. The “brain trust,” which became an incubator for many of the ideas that would later be incorporated into HotWired, included Rossetto, Metcalfe, Kelly and Steuer, along with a number of guests such as John Perry Barlow and Howard Rheingold, who would share their visions of coming changes in the

\textsuperscript{40} Quoted in Turner, 2006: 216.

\textsuperscript{41} Rossetto, 1993a.

\textsuperscript{42} Wolf, 2003: 79, 205.

\textsuperscript{43} Cool, 2008: 161.
media and cultural landscape, and what role Wired could play in it.\textsuperscript{44} One regular attendee was Andrew Anker, an investment banker who had helped Wired raise funds for its launch and whose mix of financial and technical knowledge (he had previously worked at a multi-media start-up) impressed Rossetto and Metcalfe. In February 1994, Anker would officially join the company and begin working with Steuer on a business plan for a Wired-branded publishing venture on the World Wide Web.

\subsection*{3.2.3 The hybrid communities of Cyborganic}

The personal and professional ties that were instrumental in creating HotWired were being stitched together just as the web came into view as a platform for commercial publication. In part, these contacts were made in and around the offices of Wired, including Rossetto’s brain trust and Kelly’s connections with the Whole Earth group. But equally importantly, Wired drew on a growing population of Bay Area programmers and designers working in the multi-media industry, many of whom were introduced to the web at an early stage. The new media workers that came to HotWired distinguished themselves through their alignment of social activity and cultural expression with their professions, as well as a corresponding adoption of new, ‘virtual’ technologies to bridge these divergent contexts. A lively arts and culture scene in San Francisco provided them not only with the opportunity to form personal relationships that could be leveraged in professional life, but in some cases a model of collaboration and creation for the processes and products of new media work - in short, the various raves, festivals like Burning Man and other regular cultural events formed what Fred Turner calls a “cultural infrastructure” for new media production.\textsuperscript{45}

The mix of casual and formal associations, social and professional activities, and cultural and work-related milieus was visible from the very first moves to put together a team for HotWired’s production. In October 1993, at a Terrence McKenna Halloween show, Jonathan Steuer met Brian Behlendorf, then an undergrad at Berkeley. They discussed Behlendorf’s work on the SF-Raves mailing list, which had been set up to document, facilitate, promote and discuss local performances, and served as impetus for Behlendorf to learn the basics of running the list, whether writing scripts for the mail client or scanning posters and images to be sent out. Steuer pointed out that these skills were in demand at Wired, and arranged for Behlendorf to begin working there on a project basis soon after.\textsuperscript{46} Behlendorf’s first task was to debug and rewrite scripts for Wired’s email-

\textsuperscript{44} Andrew Anker, interview, 2010.


\textsuperscript{46} Behlendorf interview, 2010.
The same principles of facilitation-at-a-distance and automation that characterized SF-Raves and his work at Wired also informed Behlendorf’s work on the Apache web server a year later. After writing code to make HotWired’s registration system work with NCSA’s server software, Behlendorf noticed that other patches were being written elsewhere and set up a mailing list to coordinate the efforts. The project would become more elaborate with time, and together with Linux still stands as one of the two greatest success stories for a decentralized, open source method of software production.47

The practice of transferring methods and products of new media work between contexts was formalized in Cyborganic, a hybrid community initiative and web production company founded by Jonathan Steuer that had close ties to HotWired. That Fall, Steuer was setting up his own web server at home, and making some of the informal contacts (including Behlendorf) that would eventually become involved in the project (which held regular ‘community events’ from 1993 and was incorporated in 1995). Cyborganic, as Jenny Cool notes in her ethnography, can be traced back to a business plan written in 1990 by Steuer and long-time friend Jonathan Nelson, proposing a combination of technology emporium, recording studio and performance space.48 Cyborganic would similarly combine recreation with business, and technology with community. Its aim, Cool writes, was “to create an Internet business based on hosting local communities on the model of the WELL.”49 The business plan was reflexive: the community and the online media used to facilitate it would be folded into the collaborative work and end products that would generate revenue. As Cool writes, “Steuer’s plan was to demonstrate the value of combining face-to-face and online sociality by starting the type of community he envisioned among his own friends, in his own neighborhood.”50 Steuer and two roommates turned their house in San Francisco’s mission district into a hub for social events with a growing number of young artisans who, like them, made a living in the emerging multi-media and web publishing industries. The group would communicate regularly both on and offline, for instance through the Cyborganic mailing list and regularly scheduled ‘Thursday night’ pot-luck dinners.

Cyborganic was thus intra-cultural in the sense that it consciously mixed social lives with professional ones, but also - and for the business proposal, more importantly - ‘virtual’ lives with

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48 Cool, 2008: 158

49 ibid: 152.

50 ibid: 152.
real ones. Counter to dominant ideas at the time about the potential of new technologies, Cyborganic saw these less as virtual substitutes for existing community and instead a powerful means to bridge aspects of life separated by convention, and thereby establish robust community. New media would enable a productive, collaborative style of work between diverse participants at the same time that it provided a progressive correction to institutions of work in which personal expression and cultural difference were suppressed. In this way, Cyborganic succeeded other forums like the WELL, Mondo 2000, Burning Man and Wired before it, in becoming a San Francisco-based forum for ideas related to technology and social change. The contribution made by Steuer and other Cyborganics was the development of concepts and code that integrated these larger goals with the emerging technology of the web, and tied this vision to one of entrepreneurship in the new medium.

In much the same way that Wired profited from and boosted an existing network of technology writers and other professionals associated with Whole Earth, the Cyborganic community entered into a mutually beneficial relationship with HotWired during its early development. Connections at HotWired were made with Justin Hall, Ann Hess, Howard Rheingold and others who would join Cyborganic in 1994 or later, helping with new projects and raising the group’s profile. And also like the Whole Earth before it, Cyborganic would lend those associated with it a cultural legitimacy that peaked with feature articles in Wired and Rolling Stone. Meanwhile, Jonathan Nelson, together with his brother Matthew and Brian Behlendorf, founded Organic Online, the first marketing and advertising-focused web production company. From the summer of 1994, Nelson’s company would be headquartered in the same building as Wired on third street, and together with the existing personal relationships this proximity enabled a mutually beneficial partnership: within a few months, Organic Online was contracted by HotWired to create the web’s first ad banners. At Wired, Steuer’s vision of mixing interpersonal, community and commercial networks through technology were realized on a daily basis: as the online division grew, it became increasingly common among its employees to devote time and technical resources to any number of

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51 Of course, the Cyborganics’ perception of the grey work environment of corporate America was only that, a perception. The transition to a flexible mode of work in which personal expression, difference, vertical and lateral communication has a long history, for example as Luc Boltanski and Eve Chiapello have described in connection with the rise of a network logic in capitalism in France. See also the discussion Alan Liu’s periodization of knowledge work. Boltanski, Luc, and Eve Chiapello. 2005. “The New Spirit of Capitalism.” International Journal of Politics, Culture, and Society 18 (3): 161–188; Liu, 2004.

52 Cool, 2008.

53 Cool, 2008.
personal and collaborative experiments and projects.\textsuperscript{54} Perhaps the most explicit manifestation of these could be viewed on Behlendorf’s machine at the Wired office, which in addition to being Wired’s FTP server hosted the SF-raves mailing-list and another list for devotees of Burning Man, and which bore the name TAZ. Where previously Mondo 2000 had used Hakim Bey’s concept of the Temporary Autonomous Zone (TAZ) to draw analogies between such diverse technological and cultural phenomena as virtual reality, raves, Burning Man and other gatherings (such as performances by the tech-art collective Survival Research Labs), the point for the Cyborganics was that new technologies would enable the communities that formed around them to become more robust, entering a feedback loop in which grounded interaction led to more mediated collaboration and vice-versa, while the creative energies dispersed among participants could be tapped for economic gain as well. The sense of optimism they brought to HotWired and other early web projects was captured in a manifesto written by Jenny Cool in March 1994, which she later summarized as “Technology is our tool, not our master.”\textsuperscript{55}

3.3 Worldwide jam session or arbiter of cool? Designing Wired for the web

Work on the project that would become HotWired - called @Wired at first - began in the spring of 1994 with the business plan by Anker and Steuer, and continued with the hiring of Rheingold as executive editor and the appointments of art director Barbara Kuhr and managing editor Chip Bayers in May. This process would involve aligning different notions of the web’s affordances, the types of content and interaction that would best fit the new medium and, most importantly, an end product that tied this all to both a business model and Wired’s brand. Ultimately, this meant seeking a balance between the focus on community that was both a legacy of the Whole Earth network and a feature of Cyborganic’s maturing conceptualization of the web, and the publishing and publicity culture that shaped Rossetto’s ambitions and decision-making.

Curiously, the strong connection between the Whole Earth network and Wired carried over to HotWired when Rossetto, looking for someone to fill the inspirational, visionary role Kevin Kelly played at the magazine, brought in Rheingold - at Kelly’s own suggestion.\textsuperscript{56} Rheingold had edited the Whole Earth Millennium Catalog and succeeded Kelly as editor-in-chief of the Whole Earth Review. He had also recently authored \textit{The Virtual Community}, in which he wrote about the

\textsuperscript{54} Behlendorf interview, 2010; Hall interview, 2010.

\textsuperscript{55} Cool, 2008: 165.

\textsuperscript{56} Anker interview; Wolf, 2003.
WELL and other early Internet communities. Rheingold’s basic premise in his writings, which clearly resurfaced in his ideas for HotWired, was that a new medium was being shaped at a grassroots level by a group of community-minded early adopters, and that such virtual spaces had the potential to recreate the public sphere that was lost when the combination of telegraph and newspapers ushered in an age of mass media.\textsuperscript{57} Echoing some of the language of Kelly and Brand, Rheingold used biological metaphors to paint a picture of “petri-dish” experimental communities emerging on the Internet around common interests, establishing cultures of engaged citizenship.\textsuperscript{58}

As Fred Turner points out, Rheingold’s arguments for a virtual public sphere can be interpreted in terms of how they reproduced the Whole Earth belief that small-scale tools were the answer to the larger ills of technocratic society.

\begin{quote}
Rheingold’s vision of a collaborative virtual community not only echoed the goals of commune builders from the late 1960s, but also represented a transformation in the countercultural critique of technocracy. Like early 1960s critics of the cold war military-industrial complex, Rheingold critiqued the loss of cooperative spirit and implied that technology itself had brought about that loss.

And, not unlike the reversionary technophiles of the Whole Earth Catalog, Rheingold trusted in tools to restore cooperative spirit and to put cooperation once again at the center of social life.\textsuperscript{59}
\end{quote}

Jonathan Steuer and others at Cyborganic similarly forwarded the idea that technology could be used to enable and encourage collaboration, but where Rheingold focused in particular on how the virtual could become a substitute for a lost public sphere, Steuer would emphasize small, hybrid communities that blended virtual and real-world interaction. For this, he already had models in the local rave scene and the initial gatherings of Cyborganic. In terms of web publishing, this meant for Steuer that content in the traditional sense was secondary to the capacity of the larger infrastructure for interactivity: ideally, the emphasis would be on collaborative media, that is, content produced with rather than for users, and mediated collaboration, with various channels for exchanges among users and between users and editors.

What could be called the Cyborganic approach to the web was not simply imported into the offices of Wired, but evolved during the months of activity and debate leading up to HotWired’s launch, as well through new contacts made there. In June, Justin Hall joined HotWired as an intern, working as an editorial assistant. Hall was fast becoming one of the web’s first celebrities with his site, Justin’s Links from the Underground, often credited as the first blog. On it, he posted photographs and details about his personal life alongside various links, including a number on how

\textsuperscript{57} Rheingold, 1993.

\textsuperscript{58} ibid: xx.

\textsuperscript{59} Turner, 2006: 160.
to publish on the web as well as an extensive and popular list of links to pornography (though the pages linked to were fairly tame by subsequent web standards). Hall’s personal pages were his calling card, and the reason he was invited to work at HotWired - Hall had sent resumes to Wired twice before, but it was his chosen form of personal expression that demonstrated his ability to work with HTML. As with Cyborganic community, here the distinction between personal and professional was deliberately blurred. Meanwhile, what distinguished Hall from early online diarists like Carolyn Burke was the extent to which he tied the act of personal publishing to an ethic of openness he considered inherent to the medium itself. And with this, Hall’s proto-blogging was easily aligned with the emerging Cyborganic notion of mediated community. In order for online life to become a productive force in real-world communities, one would have to be willing to make elements of one’s personal life public. Rheingold, inspired by both his experiences with the WELL and by the experiments with web publication by the likes of Steuer and Hall, settled on a description of HotWired’s design goal, in which the focus became the facilitation of such experimental media life: “HotWired uses the net as a medium for a worldwide jam session.”

Comparatively, Andrew Anker took to the web with the seemingly mundane goal of selling advertising, but his conclusion was perhaps just as dramatic: “Control.” The ability to see exactly which pages a user downloaded, to see unique trails and repeat visits, to use IP addresses to determine where users were located geographically, all of the data would open up a world of possibility for targeted content and advertising. Whereas with print one might draw on estimates of pass-around readership or conduct surveys, here were signs of what could result in a completely transparent audience. This also provided a stark contrast with services like America Online, which would issue monthly traffic reports that were rarely insightful. The decision to base the business on advertising had been made more or less immediately - the secure connection protocols eventually used for credit card transactions would not even be written for at least another year, much less used widely. Also, this model meant HotWired could plug into Wired’s existing network of advertisers: Wired already had “quite a good list of advertisers - IBM, AT&T, Silicon Graphics, Sprint - all of the people who, if you were going to go build something with advertising on the Net,

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61 Hall interview, 2010.


63 Anker interview, 2010.

64 ibid.
would be the people you'd talk to.” However, Anker and Rossetto were also inspired by the marketing ideas of popular business writers Don Peppers and Martha Rogers, whose 1992 book *The One-to-One Future* argued that the rise of interactive media would bring about new, personalized forms of advertising. And in this light, they favored not only a revenue model based on advertising but “building a membership-and-password system for HotWired that would give sponsors exact information about viewers and eventually allow targeted advertisements to hit specific users. Targeted advertising on the web would be the ultimate example of disintermediation.”

The one-to-one future of advertising - in which the basic genres and forms of advertising would change as drastically as its logistics - thus fit neatly within Rossetto’s larger vision of how the web would transform not only the shape of the media industry - with thousands of smaller producers taking the place of the traditional giants - but also the character of the content it produced. Wired’s own success was proof in Rossetto’s mind that desktop publishing technologies were making it possible for any independent to compete with the conglomerates. And with the web’s capacity to minimize the costs of distribution, Rossetto believed that the media industry as it existed would disappear. As Gary Wolf later recalled, “[Rossetto] thought the entire landscape of content was going to be remade around new brands doing new things in a new medium. It was a race.”

Whoever arrived first at the scene, whoever had the best content and graphics and features, would be positioned for early dominance in the new medium. But it was not just a matter of brute force and filling the new medium with content as quickly as possible, but required a sense of the qualitative changes media had to undergo to achieve success, a distinction Rossetto addressed after HotWired launched:

> [T]he mass media talks to everybody. It tries to be abstract and discover a voice and attitude that everybody can connect to. I think Hotwired focuses on a voice and attitude that certain people will connect to. We don't need to have an audience of 100 million people. We're happy with an audience of maybe a million. But a million is a lot different than 100 million.

A particular voice, point of view or attitude - this new mode of authoring and editing would represent the qualitative shift in media production mirroring the quantitative changes wrought by new technology. Put differently, the medium was the message, and the web was shaping media production in its image, down to the level of content. In HotWired’s case this meant a distinctive, 

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65 ibid.  
‘free-thinking’ style that avoided the careful phrasings and false equivalencies of mainstream journalism, and replaced them with bold statements and outspoken points of view. However, it’s important to note how closely this web-native practice resembled a familiar past: many of the stylistic characteristics Rossetto called for had been pioneered by the New Journalism, and, more so than responding to the demands of a new medium, he was continuing a tradition instituted by other magazines such as Esquire and Rolling Stone that encouraged experimentation and literary non-fiction.

Rossetto’s belief that major media companies would collapse while a new generation of producers took over on the web should also be seen in context. The image of a virgin media landscape waiting to be filled by Wired and other new, web-savvy brands fit the frontier metaphor for the Internet that was introduced by Mitch Kapor and John Perry Barlow of the Electronic Frontier Foundation (EFF), and additionally employed in the anti-regulation arguments of the Progress and Freedom Foundation (PFF). As various commentators have argued, the metaphors of cyberspace and the frontier were instrumental in tying the Internet and the web to a discourse of freedom, in particular libertarian ideas of individual and entrepreneurial freedom. For Kapor and Barlow, the frontier served to further their argument that the new technologies could not be regulated in existing legal frameworks, that conventional notions of property and expression would have to be understood differently and, by extension, that this space should be protected from extensive regulatory control by old-world institutions. Esther Dyson and others at the PFF similarly argued (following Alvin Toffler’s wave theory of history) that the move to cyberspace meant leaving behind an industrial paradigm, and entering an informational one. Regulatory policies and property laws engineered for industry were no longer suitable when the new raw material of production, information, was free and abundant. Likewise, laws aimed at ensuring that media providers represent a diversity of political and cultural viewpoints were unnecessary when material barriers to entry in publishing and broadcasting diminished, allowing the market to produce such diversity on its own. As discussed in chapter 1, such notions were utopian configurations grounded in the computational metaphor. HotWired was at at once a vehicle to promote these ideas and, it seemed to Rossetto at the time, a demonstration of their inevitability. It

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72 ibid.
would engage the magazine’s young, educated and wealthy (and mostly male) audience, offering them a point of view that resonated with their roles in bringing about a new age of individual empowerment and economic growth spurred by powerful new technologies. It seemed inevitable that, for its audience and for the many companies that would follow their lead, HotWired would be the arbiter of style in the new medium.

In the very premise of HotWired, then, one sees a convergence of a number of important strands in cybercultural thought, and the first attempt to apply them to the web. On the one hand, it would enable forms of collaborative work and community, ideas that can be traced back to Turner’s New Communalists, while creating a public sphere-like forum for the free exchange of ideas; on the other, it would embody the radical changes in the media industry imagined by cyberlibertarians such as Barlow, Dyson and Rossetto, and deliver an editorial voice appropriate to the new medium.

At first, there appeared to be consensus. In a May, 1994 interview in the New York Times, Rossetto previewed the project (still called @Wired), where it was introduced as separate from Wired but also closer to the vision on which the magazine was built: it was “what Wired was meant to be” from the beginning. At a time when the estimated number of websites was still under three thousand, Rossetto was vague about the plans, but the project was summarized as “part publishing venture, part online service and part cyber-salon.” The general outline was that Wired’s audience would become its community - this fit both Rossetto’s idea that new media would offer producers smaller but more engaged audiences, and Steuer and Rheingold’s belief that the web could provide a public sphere and build community. Importantly, this harmony was bolstered and made possible by a shared sense that the new medium had a purpose at its core that had to be grasped in order for one to be successful with it - and that at Wired magazine they were ahead of the curve. “The big sumo-wrestler corporations that are stumbling around trying to dictate the information superhighway have entirely missed the point [...] It's not about content, it's about connectivity.” Steuer, in an e-mail to Rheingold in May, referenced earlier reservations but was now cautiously optimistic:

I think we have arrived at an arrangement where we will be allowed to put together whatever it is that @WIRED needs / wants to be, and Louis will supervise from the editorial side [...] I think


74 ibid.

75 Rossetto, quoted in Markoff, 1994.
things will actually work out reasonably well, and I'm now much more excited and less anxious about this project moving ahead.\textsuperscript{76}

Over the next two months, however, this truce would fall apart, and a range of key design decisions would become battlegrounds in which underlying assumptions about the web, its uses and the role of early adopters like Wired became central. By August, there were arguments and flames on the internal mailing list, and it seemed that “every day someone would be in tears.”\textsuperscript{77} The highly charged atmosphere was an outcome of egos as much as editorial principles, and the discussions devolved to the point that Anker would regularly mock Rheingold, while Rossetto and Steuer would clash even over routine decisions. Still, given that Wired’s reputation and readership was still growing, and that other companies interested in publishing on the web were watching closely, it would be a mistake to dismiss the various arguments over HotWired’s design as non-consequential.

As Jennifer Cool argues, following Shoshana Zuboff, some of these arguments may be interpreted in terms of two opposing work paradigms, where friction arose between the young Cyborganics’ “tacit” knowledge of the new medium and Rossetto and Anker’s dedication to an

\textsuperscript{76} Steuer, 1994.

\textsuperscript{77} Wolf interview, 2010.
outmoded publishing culture.\(^78\) One example had to do with competing design sensibilities: users could navigate HotWired from its welcome page via a large bit-map image created by Max Kisman (see figure 1), and before they could get past the splash page they would have to wait for the image to load, something that could taking seemingly forever on a 14.4k modem. The younger staff was upset and wanted at the very least text links at the top, so that users could click through quickly, but Rossetto resisted, not least because the image looked so good on paper. However, in late 1994, more people (and more potential advertisers) would see HotWired in a newspaper or magazine than in a Mosaic browser - if nothing else, Rossetto argued, HotWired would inspire those with slow internet connections to upgrade.\(^79\)

The most controversial decisions, however, dealt with the prominence of interactive content (i.e. composed by users) relative to editorial content on the one hand, and the registration system, which Anker and Rossetto believed would enable the delivery of custom advertising to readers, on the other. Arguments about the first issue highlighted an incompatibility of HotWired as ‘worldwide jam session’ and as ‘arbiter of style.’ In an email discussion with Rheingold, Rossetto and Kelly, Steuer made the case that a public sphere model matched Wired’s editorial vision of taking a stand on important political issues related to technology (“as demonstrated by our response to the whole privacy debate,” he wrote).\(^80\) Rheingold added to this with a bolder statement about the decision’s implications for the future of the web and its ability to offer an alternative to mainstream media:

I think we have a window of opportunity, during which it might be possible to demonstrate to the world the power and usefulness of the cooperative many-to-many culture exemplified by the Internet. By making sure we give people a voice and a forum to raise issues, and making sure we pay our contributors well, we have an opportunity to keep the medium as open as it is. It is entirely possible that the commercialization of the medium will also result in its shlockization, as happened with television. But I think [...] we have a chance to show the world an alternative to the video-on-demand world of Disneymedia.\(^81\)

For Rossetto, who was partial to arguments that opposed digital to traditional media, an alternative meant using the technical potential for interactivity to tailor content to the audience, but these proposals suggested giving up editorial control. Here, he attacked what he saw as the naiveté of the public sphere model: “We don't have to tell people we are going to be ‘democratic,’ (whatever that means), we just have to run a straight-ahead, ethical, freedom-loving, high quality service that


\(^80\) Rheingold, Howard. 1994. “Re: HotWIRED Call to Arms.” Email, June 28.

\(^81\) ibid.
exceeds whatever we promise, and is so amazing and useful to our audience that they become addicted to it.” Most significantly in design terms, Rheingold’s initial sketches that gave prominence to non-editorial content were pushed aside, and the issue came down to whether the site would have ‘threads’ connected to each article or comments would be placed in a separate forum, thus providing a sharper distinction between editorial voice and user contributions. Rossetto began comparing the idea of virtual community to CB-radio - fun for a moment but not the media experience that most people would settle for.

Opposition to the registration model, meanwhile, was twofold. First, Steuer and others argued, registration was an invasion of privacy, and went against the principles Wired endorsed when it featured the views of hackers and members of the EFF in its magazine. Ian McFarland, one of the original HotWired staff of 14, entered into a long email exchange with Rossetto on the internal mailing list, and accused him of hypocrisy, of supporting privacy only when it helped sell magazines. For McFarland and others, the ability to be anonymous on the web was essential to the new medium and the culture emerging within it. Second, McFarland argued that registration went against the open and collaborative spirit of the web as a hypertext medium. Who would link to a page behind an authentication wall? In both cases, it was a question of ethos, that of the medium and those who knew it best: “You have surrounded yourself with creative, enthusiastic people with a real grasp of net culture” he wrote to Louis, “Why did you do that, if not to ask their opinion?” Rossetto simply dismissed the first criticism, replying that “All the members of the WELL are identified. Are they dupes? Fools? Exploited?” He supported hackers as free-speech defenders and an anti-government force, but he was also resolutely pro-business, and registration was a commercial exchange on the open market. To the second criticism, he countered that while links might send traffic, a basic desire for inclusion was a more potent factor. By creating an exclusive community, the registration system would function similarly to the celebritization of the digital elite in the pages of the magazine, which produced an image that readers could aspire to, and the object-fetish of the magazine itself, which Wired actively pursued through its publicity surrounding

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82 Rossetto, Louis. 1994. “Re: HotWIRED Call to Arms.” Email, June 29.


85 Quoted in Wolf, 2003: 123.

“charter subscribers” like Steven Spielberg and Cher. Like McFarland, Rossetto couched his argument in terms of his grasp of the grand transformations underway, however the source of this knowledge (and the proof of its validity) did not come from early Internet adopters, but from the success of the magazine itself: “When we started Wired, we got a ton of shit about the design. It was a ‘hassle,’ it was ‘user unfriendly,’ it was ‘pretentious’ etc. We persisted, because we knew what we were doing.”

And with that, both debates ended. Deadlines had been missed and the launch was delayed, giving Rossetto and Anker impetus to take more control and push Rheingold and Steuer out. In October, the site finally went live but the mood was anything but festive. Steuer had already been demoted in September, and both he and Rheingold resigned in the weeks following the launch. Most of the original HotWired staff would follow in the next few months.

3.4 From digital culture to web culture: revisiting the participation paradigm

Over the next three years, HotWired’s development mostly followed the ambitious vision Rossetto had outlined, and took major steps to establishing the Wired brand on the web. The “start-up within a start-up” grew from fourteen to over 180 employees in that time, and seemed to add sections and new websites at an even faster pace. As Wolf documents with bemusement, sister-sites like the political news journal The Netizen cost a small fortune to produce and brought in little extra advertising revenue. In part, additions like this one were a product of Rossetto’s continued belief in the frontier metaphor. This was a new medium, and if Wired acted quickly and competently enough, continued to report from the front lines of the digital revolution and to speak in a voice that suited the new audience, it had every bit as much a right to lead the web in political coverage (or any other topic it chose) as any other magazine or newspaper. The addition of politics fit in his vision of the web as a series of content areas that Wired needed to claim as soon as possible, to “plant flags.” Other moves were more clearly reactions to outside events, such as the addition of a Wired-branded search engine, HotBot. Yahoo’s directory and search engines such as Infoseek were out-performing web publishers in terms of traffic, and were selling advertising at a much lower rate


88 Quoted in Wolf, 2003: 123.


90 Anker interview, 2010.
than HotWired. (In the first six months, HotWired could justify higher prices for banner ads because of the magazine’s reputation, but this ability soon waned).\textsuperscript{91} The commitment to planting flags brought about the need for other investments that would drive up traffic immediately, to the point that Wired had to choose whether to cut costs dramatically or try to go public, which given Rossetto’s and Anker’s ambitions was not seen as a choice at all.\textsuperscript{92}

From an editorial perspective, however, the more remarkable change at HotWired in this period was a shift in its stated focus from “digital culture” to “web culture.” In early 1997, after a second failed attempt to bring the company public, and just as Rossetto was losing grip on the company, HotWired underwent the most dramatic makeover of its brief but eventful existence. Previewing HotWired 4.0, which was optimized for the new generation of Internet Explorer and Netscape browsers, June Cohen stated HotWired’s new goal was to become “the first major site to showcase the life and culture of the Web.”\textsuperscript{93} In its first iterations, HotWired was divided into several content areas - sports, arts & literature, business and so on, though with names like Adrenaline, Renaissance 2.0 and Coin - with a common focus on how these traditional topics were being transformed by digital culture. At the time, any articles about the web itself would be found in another section called Signal, which was described as “the pulse of the digital revolution,” and in addition to the popular Net Surf column included gadget reviews and industry gossip. With HotWired 4.0, this dynamic was reversed. Now there were five sections devoted to aspects of the web - Webmonkey, with how-to guides for amateur web developers; Synapse, with columns and interviews about the web; Dream Jobs, with job listings and articles about working in web production; Net Surf, with website reviews; and the Beta Lounge, with Web audio and video - and just one section on digital art and culture, called RGB Gallery. In short, HotWired 4.0 announced that there was something called web culture, and that this was now the central focus of Wired’s online publication.

Did HotWired 4.0, with its emphasis on tools for building the web and creating a community around a shared culture, perhaps signal that the ‘worldwide jam session’ of collaboration and amateur creation had prevailed over Rossetto’s vision of planting flags and being an arbiter of cool? There are certainly reasons to think so: in interviews with various people who helped launch HotWired, there was a consensus that Rheingold and Steuer were proven right over time, and that

\textsuperscript{91} ibid.

\textsuperscript{92} Anker interview, 2010; Wolf, 2003.

their ideas more closely resemble the web as it is now commonly perceived. The argument is also made by Jennifer Cool in her assessment of the legacy of the Cyborganic vision as opposed to that of Wired:

Producers of traditional media (books, magazines, cinema) who came online during the dot-com boom were fond of the slogan “Content is king!” However, as the most recent developments on the Web bear out, the insight that user-generated content is king seems to have been more prescient.

Cool implies that the difference between Steuer’s and Rossetto’s visions was analogous to a later distinction, made most notably in Web 2.0 manifestos, between a publishing paradigm that dominated the early web and one of participation that we now know. In an article in Wired’s August 2005 issue celebrating “10 years that changed the World” (beginning with the Netscape IPO), Kevin Kelly wrote that “we all missed the big story,” arguing that the hype surrounding the ability to publish hypertext overshadowed the real significance of the web. “At its heart was a new kind of participation that has since developed into an emerging culture based on sharing.” Though he did not mention it explicitly, Kelly’s implication of himself in ‘getting it wrong’ suggests that the original HotWired debate was at the very least at the back of his mind.

However, the question of who was the better futurist does little to shed light on how understandings of the web changed, and the very idea of the web having a purpose or direction that can be grasped by some and not others is shaky at best. Rather than a space for settling old scores, what is especially significant about the case of HotWired is that it shows that contemporary debates about amateurism in online media can be traced back (at least) to the earliest attempts at web publishing, and it is thus by default wrong to reduce the discussion to one of the “effects” of Web 2.0 technologies. More generally, the historical approach makes visible and challenges some basic assumptions about how the medium develops and about contemporary understandings of the web, most notably the widespread concept of participatory culture. While Cool is correct to argue that participation technologies have a social and cultural history, and thus were not inevitable outcomes of the medium itself, there are a number of reasons to put a question mark behind the publishing-

94 Even Andrew Anker, now an executive vice president at the blog software company Six Apart, agrees that Rheingold and Steuer were prescient: “it's clear that Howard and Jonathan were 100% right and 15 years too early” (interview, 2010)

95 Cool, 2008: 199.

96 Kelly, 2005.

97 The term participatory culture is mostly associated with the work of Henry Jenkins. Here, I use the concept in the broadest sense he gives it: although he is particularly interested in audience participation, he notes that participatory culture can include grassroots media as well as the private-public interactions of social media. In HotWired’s case, the idea was a culture built on the web but also of the web, in the sense of shared values, interests, references and so on. This notion of “web-native” culture is the focus of chapter 4, on blogging. C.f. Jenkins, Henry. 2006. Convergence Culture: Where Old and New Media Collide. New York: NYU Press.
participation opposition. First, as new media publishers would be quick to point out, there has never before been so many readily available publishing technologies. Second, proponents of participatory culture tend to falsely assume a generic, amateur user who has the desire and ability to create content, and generally ignore the political economy of social media, in which “user-generated” hardly means an empowered audience.98 A related critique might aim at the gap between rhetoric claiming a new amateur media landscape, and the actual effects on consumption: in a study of the kinds of content watched most on YouTube, the platform that is perhaps most recognizably associated with participatory culture and user-generated content, the most popular content by far was not amateur but rather traditional, professionally produced media.99 And finally, there is a more subtle point about how participation has been formatted by formal and stylistic conventions established in professional publishing contexts - to illustrate this, here I briefly discuss how HotWired arrived at its own iteration of participatory culture.

3.4.1 Suck.com and the web as exception

Rather than describing the effects of digital technologies on business, literature, arts, science or any other topic, HotWired 4.0 posited a self-contained culture - a set of practices, ideas, aesthetics and a style - specific to the web. It not only described this culture but would grant access to it. HotWired was now for “Web participants,” and would include a members section where they could create their own pages, and have the chance to be featured on the front page as an editorially chosen “Geek of the Week.” June Cohen, who had been with HotWired since the beginning and was best known as the writer of the popular column Net Surf, put it this way: “Everything about HotWired 4.0 is designed to transform its visitors from outsiders to insiders.”100 Although the focus on tools and member pages suggested strong similarities with what Jonathan Steuer and Cyborganic were looking to achieve, the rhetoric of collaboration and participation here was aligned with one of the key aspects of Rossetto’s publishing vision for Wired and HotWired, which was to have users identify with and aspire to an avant-garde style, while profiting from the sense that the product was a gateway to emulating these.

One major reason for the restructuring that took place with HotWired 4.0 was financial: the company was finally paring down, and the new version reduced production costs. But the decision


100 Quoted in Frauenfelder, 1997.
to focus on web culture has a more subtle history that revolves around two of HotWired’s surprise successes. One was Webmonkey, which launched in 1996 when June Cohen had the idea of pooling knowledge about web development at HotWired. What began as a few weekly columns and how-to guides for beginners by HotWired staff such as Jeff Veen, quickly became one of the most popular sites in the HotWired family. What set Webmonkey apart was that it was written for (amateur) web producers, in an editorial voice and direction that connected web development and design with the larger social, cultural and economic issues that were Wired’s normal focus - and it was this combination that would be pursued more comprehensively in HotWired 4.0. However, the recognition of the key audience of professional and amateur web specialists, along with the more fundamental notion of a culture around shared experiences in building and surfing the web, came from an earlier HotWired product, Suck.com.

Suck was launched anonymously by two HotWired producers, Carl Steadman and Joey Anuff, in August 1995. Inspired by a tradition of humor and media satire that runs from Mad Magazine to the independent ‘zine culture of the 1990s, its daily satirical columns parodied a growing crop of sites like Netscape’s ‘What’s Cool,’ that would write glowing reviews of cool new websites each day.101 The story of how Suck was created would become the stuff of legend among web professionals at the time. Steadman and Anuff were not involved with editorial decisions at HotWired, and were frustrated with what they saw as the site’s misguided commercial and creative direction. In particular, Steadman echoed Ian McFarland’s earlier critique of the registration system - that it kept users out and set a dangerous precedent for web publishing.102 When Anuff suggested creating a Mad Magazine for the web, Steadman agreed on the condition that they do it themselves rather than go through the editors. The tradition of using company machines for independent side-projects had already been established by Behlendorf and others. Steadman and Anuff were ambitious, setting a goal of surpassing HotWired’s growing stable of sites in traffic and, more than anything, demonstrating their superior knowledge of the web.103 They decided to publish anonymously, with goofy pseudonyms like Duke of URL and Webster, knowing that this would add to the initial interest. Suck quickly met its traffic goals, and HotWired bought the site within two months; soon after that Steadman and Anuff were coordinating a regular staff and a number of contributing writers.

102 Sharkey, 2005.
Suck was the first publication to explicitly cover and critique web culture - that is, to identify some of the emerging tropes in the web production industry along with generic conventions of amateur and professional web publishing (though there was perhaps some precedent here with HotWired’s own Net Surf and Flux columns). A column would usually center around a website, person, company or product, and dissect the subject with deadpan humor. One early column, titled “Indexing for Dollars,” made fun of dot.com exit strategies and Yahoo!, identifying the creation of a directory as one of three ways to make money on the web - each of which involved selling to a ‘real’ company like Microsoft. As Wolf writes, “[t]he site’s recurring motif was that by the time you heard of the latest outrageous scam, it was already too late to participate.” Other typical columns covered developments in interactive television - “It’s no longer a matter of whether or not the revolution will be televised, though there’s some question as to its ability to make it past a V-chip. What remains most salient is that the television will not be revolutionized” - and a guide to fixing Wired magazine by tearing out all of the advertisements, with Negroponte’s column being optional.

Often cited as an inspiration by early bloggers, some of the formal features that Suck devised - links as literary devices, design consistency and constraint for readability - would become key conventions in blogging but also in web publication more generally. The most significant of these, perhaps, was the decision to publish relatively short essays each day. As Wired writer Steve Silberman would later recount, “As soon as Louis [Rossetto] saw Suck, he knew that what had to happen was that HotWired would have to update daily.” In contrast to traditional publishing schedules in journalism and the entertainment industry, as well as HotWired’s scheme of publishing different columns on different days, “once Suck launched, it was obvious that what you really wanted to create was an obsession.” Steadman and Anuff later suggested the faster pace and dated entries to Justin Hall, and Suck inspired others who would later be recognized as the first bloggers. Blogging’s “perceived freshness fetish” of updating in a regular fashion - a convention so sedimented that it is codified in the optimization of blogging software to immediately include


107 Quoted in Sharkey, 2005.

108 ibid.

updates in search engine indexes - has its origins not in the amateur creation of personal pages and online journals, but was rather established and popularized by media professionals.\textsuperscript{110}

Part of Suck’s appeal was that it put a spotlight on those working in the technology sector, especially in web production. As Matt Sharkey would recollect in a piece celebrating Suck’s tenth anniversary:

While the trade magazines flattered executives with softball portraits and blind utopianism, Suck spoke to the grunts on the front lines, those like Steadman and Anuff, who saw the mistakes being made at the top but lacked the power to do anything about it. It was snarky and sarcastic about topics that were too square to be snarky and sarcastic about anywhere else. For the ground-level tech drone stuck at a computer, it provided the perfect daily respite. It was quickly located, easily digestible, and if you could suppress your laughter, it looked just like working.\textsuperscript{111}

It was meant for an audience that shared Steadman and Anuff’s disgust for Netscape’s infamous blink HTML tag, who only used the word ‘cyberspace’ ironically and who saw up close that there was no center in the dot.com bubble. Suck was “intra-cultural” production, literally “outsiders inside” making fun of HotWired while also attempting to out-produce it.\textsuperscript{112} It was also intra-cultural product: a means for web producers and other knowledge workers to let off steam and laugh at clueless managers before returning to work. Readers were soon writing down their own frustrations and sending them to Steadman and Anuff; eventually Suck published one of these, in which a programmer vented his anger into a long rant about executives who “don’t browse” but “read about the Web, fer chissakes, in the New York Times.”\textsuperscript{113} As Sharkey notes, the column “may as well have been the Suck credo.”\textsuperscript{114} The larger insight was about the attraction an audience had to see itself reflected in the content: starting in 1996, Suck began a weekly feature in which they published (and lovingly ridiculed) comments and questions e-mailed by readers. Of course, with its focus on web culture, Suck was already involving its audience. Each time the site highlighted another new genre, trope or debate on the web, Suck increased its chances of getting linked back by major sites, if only because such public mockery was a form of flattery.\textsuperscript{115} Meanwhile, it was not only clever insights into a shared web culture or the accompanying humor that was innovative - in terms of affording a


\textsuperscript{111} Sharkey, 2005.

\textsuperscript{112} Liu, 2004. See also chapter 2.


\textsuperscript{114} Sharkey, 2005.

\textsuperscript{115} One example of this was Suck’s parody of Slashdot, the subject of chapter 4.
new understanding of what kind of medium the web was or could be, it was how the ‘Sucksters’ juxtaposed these impressions with a series of references to existing media forms that was significant. Web criticism, in other words, was media criticism, and web culture - whether a new site, a trade magazine or well-known developer - was in the same discursive space as MTV, Dave Eggers and Kurt Cobain, as Suck moved seamlessly between the two and often made sense of the web through these kinds of pop-culture references. Through Suck, then, one sees a continuation of the conflation of technological and media cultures that had previously characterized Mondo 2000 and Wired.

The backdrop to Suck’s cynicism and its success was the increasing presence of traditional media on the web. Though Suck launched before many media companies had websites, columns regularly presented the situation as a foregone conclusion, and spoke of the web’s promising future “as a broadcast medium.”\textsuperscript{116} But at the same time, Suck’s descriptions of the web placed it in opposition to what were perceived as colonizing forces: the web became a space in which familiar forms of media and entertainment resurfaced (along with the related institutions of marketing and public relations, both of which were also routinely Suck subjects), but also a space in which these were resisted, however temporarily. On Suck, nothing was funnier than blithe commentary about ‘old media’ stumbling around the web; and if the latter increasingly resembled the cliché of media-saturation, there remained a subversive undertone and a sense that the web also offered respite. An example is a column by Steadman - writing under the pseudonym Guy Deboredom - in response to the emergence of web fiction sites such as The Spot, which was likened to “Beverly Hills 90210 on the Web,” where fictional characters would publish daily journal entries and photographs. Steadman notes that one could also find the “real thing” on the web, and proceeds to list with precision and wooden delivery the recent events, however mundane, in the lives of three relatively prominent online diarists. And in the conclusion, he ties the themes of fiction, celebrity and mediation together:

Don't find these personal screeds fascinating? Although we find that difficult to believe, there are other methods of living your life vicariously through others in order to feel a part of some larger "community," the most likely candidate being, of course, the celebrity spectacle which we so coyly call "the news." CNN, anyone?\textsuperscript{117}


At the same time he equates online diarists with the mediated spectacle of cable news, he invites the web-savvy audience (which more than likely included the diarists themselves) to laugh along, since the joke’s main targets are the clumsy web-fiction sites.

According to the creators and others involved with Suck, the site was successful because it told the truth about the web at a time when the level of hype surrounding it seemed to reach new heights each day. “We’re not being cynical, we’re being honest.”

Gary Wolf, who as HotWired’s executive editor was one of the first to hear about Suck and would later contribute columns, recalled Suck as:

just a beautiful theatrical moment - like the origins of theater - where you're really kind of acting out the kind of situation people are in, in a way. Do you know what I mean? It was very close to reality, or at least to the narrow reality of people building the web - what was motivating them and what they were doing.

Suck’s appeal may have been its honest depiction of the web and its culture, but the combination Wolf uses in his description - theater and reality - is especially fitting because the site’s voice was so clearly built on the conventions of an existing publishing culture, and the truth of the web that Suck offered was often a function of its relationship to existing media and popular culture. Where earlier Rossetto had drawn inspiration from the New Journalism in crafting a writing and editing style suited to the digital revolution, the snark, deadpan delivery and pop-culture references that marked this latest version of the new medium’s voice was clearly indebted to a contemporaneous culture of independent ‘zines, including the subversive temp-workers of Processed World, the media pranks of Adbusters and Mondo 2000, and the ironic odes to celebrity-culture in Spy and Might.

After Steadman began to lose interest in the site (he would leave in 1996) and Anuff began leaving for stretches of time to work on other projects, the site changed direction and focused more on popular culture than on the web, but it remained a prototype for the web criticism of many early blogs and an influence on the kinds of web-based media commentary of popular sites like Television Without Pity. Meanwhile, HotWired began building on Suck’s success and that of Webmonkey, eventually refashioning itself for “web participants” in 1997. A year later, Lycos would own Wired Digital, and HotWired would be scaled back further before finally disappearing in 2001.

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120 Sharkey, 2005.
While its influence on web publishing and blogging has been documented elsewhere, Suck’s legacy must ultimately be understood alongside other discourses that, over time, have variously considered the web’s purpose in relation to existing institutions and (especially) media. These range from the earliest designs by Tim Berners-Lee to today’s discourses surrounding Web 2.0. In relation to the HotWired debate that preceded it, Suck can be seen as continuing some important strands: underlying the cynical jokes about the web’s commercialization was a ‘jam session’-like passion for the web’s open standards, and clearly Steadman and Anuff were not shy about their roles as the new arbiters of cool. At the same time, Suck prided itself on its lack of idealism (Steadman in particular regarded the web communitarians with disdain), just as it took pleasure in debunking the kind of grand pronouncements of digital revolution that Rossetto was famous for.\footnote{Wolf, 2003.} What it added was similar to Mondo 2000’s new media cool as explored in chapter 2: Suck signaled a recognition that the web was increasingly of a piece with existing media and popular culture, but also the argument that it may still offer an alternative - that while earlier visions of web-powered public spheres or media revolutions were naive, the web was still an exception.

3.5 Conclusion: web exceptionalism as distributed agency

In 2005, Tim O’Reilly announced a paradigm shift with the term Web 2.0.\footnote{O’Reilly, 2005.} Twelve years earlier he had predicted Mosaic would bring about a revolution in web publishing, but now the watchword was participation, companies were creating services rather than websites, and developers were “trusting users as co-developers.”\footnote{ibid.} His proclamation was not purely descriptive, and helped mobilize a new generation of web start-ups that promised to draw from user participation and user-generated content to transform the way media are produced and consumed. The concept has also helped organize debate about the web, with on the one side those who champion the new tools for collaboration and for engaging with news and entertainment media, and on the other side those who see the new platforms as causing serious harm to social and cultural institutions.\footnote{Shirky, 2008; Keen, 2007.} As much as it appeared to represent a paradigm shift, however, the emergence of web 2.0 may also be seen as a continuation of past discourses about the web’s purpose.

In this chapter, I traced answers to the question, “what is the web for?” as they were formulated at HotWired, focusing first on a debate that helps contextualize the one that has
surrounded Web 2.0 and platforms supporting user-generated content. Not only did similar arguments attend the first attempt to create a commercial publication exclusively for the web, but their roots extend well past web technology and into specific subcultures that were active in the Bay Area, not least the Whole Earth network as studied by Fred Turner in his historical account of the rise of 1990s digital utopianism.\textsuperscript{125} However, I departed from some of Turner’s conclusions to focus on the publishing culture of Wired - which in contrast to Whole Earth publications was characterized by a strong discourse of media criticism, its outsider-inside position, the celebritization of technological culture and (as Turner does note) a pro-business, anti-government libertarianism. Where Turner sees in Wired a culmination of ideas and practices that developed through the cultures of cybernetics researchers in the 1940s and 1950s and among the New Communalists and Whole Earth network from the 1960s, I argue that the case of HotWired displays a “conjugation” of cybercultural utopianism - one in which media, journalism and the entertainment industry and related institutions such as public relations became major objects of critique at the same time that their techniques were employed to report on, promote and profit from what Louis Rossetto and others saw as a digital revolution. At the same time, I pointed out that Wired’s (and later HotWired’s) version of the new media future was one that recalled the New Journalism of the 1960s and 1970s, while also being deeply embedded in media culture (especially with its celebritization of tech culture) as well as in assumptions driving the frontier and cyberspace metaphors for the World Wide Web. The new publishing paradigm, in other words, was as much a site of continuity as it was a description of a wildly different future.

In addition to these connections with the past, a study of HotWired’s exceptionalism suggests significant ties to more recent debates. Among the competing ideas about the web that were made visible during the design of HotWired were those of Jonathan Steuer and the Cyborganic community, who saw in the web a means to build, maintain and profit from a loosely connected network of people and resources. In her ethnography of Cyborganic, Jennifer Cool argued that these practices undermined the dominant perception of the web at the time as a separate world, prefiguring contemporary uses and even functioning as the “birthplace of networked social media.”\textsuperscript{126} Here, I have argued that Cool is correct to see a historical lineage bound up in specific milieus where others see simply the invention of new tools, but against the division between paradigms that she assumes. Specifically, I used the case of Suck and HotWired’s makeover for “Web participants” in 1997 to support one of the larger arguments in this dissertation, that the

\textsuperscript{125} Turner, 2006.
\textsuperscript{126} Cool, 2008.
oppositions assumed between ‘traditional’ and ‘new’ publishing paradigms, and between ‘publishing’ and ‘participation’ web paradigms, are ultimately false because they neglect the many important points of contact, exchange and transformation that occur between them. Paradoxically, perhaps, these continuities are found by taking such rupture-talk more seriously as an object of study.

Rather than dismiss the “new publishing paradigm” as a simple case of hype veiling the continuities between HotWired and previous media, then, this chapter has shown that an opposite approach is more fruitful. Taking declarations of rupture and a clean break from the past as a starting point, one quickly enters the intricate web of assumptions, professional cultures, styles, social groups, editorial perspectives, cultural meanings, personal conflicts, commercial pressures, metaphors, design goals and so on that contributed to the formulation of HotWired rupture-talk and the various editorial practices that were considered aligned with the web’s purpose or culture. What one begins to unravel, in other words, is the network that constitutes web exceptionalism as an historical actor. The idea of the web as an exceptional medium is not in itself an agent of change, but in its messy manifestations in HotWired’s producer culture and various novel (if not web-native) editorial practices, web exceptionalism nevertheless must be understood as such. Turning now to the promise of an open-source mode of news production as it emerged around Slashdot in 1999, I continue to emphasize this kind of distributed agency in the construction of practices, technologies and forms considered web-native.