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### The web as exception: The rise of new media publishing cultures

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# Conclusion: web exceptionalism and legacy systems

Is the web exceptional? In the most enthusiastic accounts of the web's exceptional character, including those surrounding participatory media and Web 2.0, this is a matter of the web's inevitable displacement of its predecessors, as well as the presence of a set of inherent capacities or 'nature' that marks the web's distinctiveness. In this dissertation, I have argued against such web exceptionalism: if the web presents a challenge to mass and mainstream media, and if it exhibits unique, novel characteristics, this is because it is made to do so. The more interesting question is how the web is articulated as exceptional, and what this means for its production: what I have shown is that narratives of the web's displacement of mass and mainstream media have been a recurring theme in web history, and that these have been key actors within the establishment of media practices, technologies and forms considered to be representative of the web's purpose or nature. The role of web-related rupture-talk, however, is paradoxical, in that it shapes such 'web-native' culture as a site of historical and cultural continuity. Against notions of wholesale change and rupture, then, I have argued that one can locate the past's persistence within web exceptionalism. This claim has been the central thread in this dissertation, and may be seen to connect six key findings.

First, this dynamic - in which rupture-talk shapes the specificity of new media as a site of continuity - precedes the web, and was a central element in cyberculture in the late 1980s and early 1990s. Cyberculture is normally defined as the culture of cyberspace, but an historical account shows that the reverse is more accurate: as various scholars have demonstrated, cyberculture is better understood as a culturally and historically specific discourse in which it made sense to conceptualize virtual reality, the internet and eventually the web as cyberspace.<sup>1</sup> The basic assumption underlying cybercultural rupture-talk, and specifically cyberspace as a separate realm in which society could be made anew, is what N. Katherine Hayles calls the condition of virtuality and what I have referred to as the computational metaphor: the idea, originating in cybernetics and cybernetics-influenced research, that information is distinct from matter, and that social and cultural phenomena are essentially systems of information exchange and feedback.<sup>2</sup> This assumption is essential to cyberculture, and is the grounds for the implicit and explicit claims in utopian visions of cyberspace: that breaking bodies down to bits is not a reduction but a purification; and that entering cyberspace means revealing so many real-world constraints on community, identity,

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<sup>1</sup> Turner, 2006; Chun, 2006.

<sup>2</sup> Hayles, 1999.

(self-)organization and enterprise as artificial. Cybercultural rupture-talk cast the specificity of new media as the capacity for a virtual existence, an exceptional quality that appeared to be realized in the concepts and practices of virtual community and virtual identity. But in defining online interaction as virtual dislocation, cyberculture simultaneously located it within the lineage of the computational metaphor.

Second, in addition to helping set expectations for online interaction and providing a powerful metaphor for understanding (and designing and using) the World Wide Web, cyberculture helped shape the key ‘offline’ media form of the tech-culture magazine. Although it is widely accepted that independent magazines like *Mondo 2000* and *Wired* played an important role in popularizing cybercultural claims and concepts, what has generally not been addressed is the relationship between cybercultural rupture-talk and the cool, irreverent style that characterized its most prominent expressions.<sup>3</sup> As I demonstrated in a case study of *Mondo 2000*, the magazine’s vision of a subversive, techno-transcendent future - which editors called the New Edge - was simultaneously an ambivalent rumination on the possibilities for underground and resistant culture, one that structured the magazine’s cool style. The New Edge was about bringing “cyberculture to the people” and the multiplication of opportunities for subversive culture and transgressive experience, but it was also a vision of intensified commercial logics, institutional forces and media-driven distraction.<sup>4</sup> *Mondo*’s specificity as a media form - its self-conscious positioning between authentic subculture and mass commodity, ironic style, self-deprecation, media pranks and “irresponsible journalism” - may be seen as an expression of its ambivalent New Edge discourse, and forms what I called, following Alan Liu, the magazine’s “new media cool.”<sup>5</sup>

Third, these two elements of cyberculture - the computational metaphor and new media cool - continue to resonate in articulations of the web as an exceptional medium, even if cyberculture and the concept of cyberspace themselves increasingly appear dated. Although it would be difficult to identify an exact end point for cyberculture, it seems fairly obvious in the ‘age’ of social media that the explanatory value of cyberspace, which John Perry Barlow once called the “new home of Mind,” has declined.<sup>6</sup> Moreover, there are signs that even when virtuality and cyberspace are still

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<sup>3</sup> Silver, 2000; the notable exception here is Liu, 2004.

<sup>4</sup> Mu and Sirius, 1989.

<sup>5</sup> Liu, 2004.

<sup>6</sup> Barlow, 1996.

used it is without their utopian connotations.<sup>7</sup> Despite this, the computational metaphor at the base of cybercultural rupture-talk may be seen as a central component of other, more recent cases of web exceptionalism. As seen in chapter 4, for example, Slashdot's increasingly complex news and community infrastructure was driven in part by a belief that processes of media production, distribution and consumption could be fully captured and made visible on the web, whether this meant the information flows that represented reputation, trust, quality, genre, political leaning, etc. Similarly, the idea of a universal social graph relies on the assumption that one might formalize social connections in a limited set of attributes and values like one might mark up web content with HTML.<sup>8</sup> My point is not to expose the shortcomings of these initiatives - strong critiques of the universal social graph (and, relatedly, the semantic web) that show the conceptual failings of such schemes already exist - but to situate web exceptionalism historically within the lineage of the computational metaphor, and to put a question mark behind the idea that, once rid of the delusions of cyberspace, one is rid of the assumptions that allowed the web-as-cyberspace to make sense in the first place.<sup>9</sup> If cyberspace at its most fantastic was a space of pure information where one could construct the world anew, more recent utopian expressions of the computational metaphor are those in which the web-as-data reveals the deep, underlying structures, patterns and flows that constitute social and cultural phenomena. The "cool" that marked the cybercultural magazine *Mondo 2000*, meanwhile, may also be seen to extend beyond the techno-transcendentalism of virtuality and cyberspace. As idiosyncratic as *Mondo 2000* was, the basic structure of what I called new media cool - an ambivalent (and self-conscious) positioning in relation to mass culture and mainstream media, a related ambivalence regarding the potential for new media to offer an alternative to their mass and mainstream predecessors, as well as a corresponding cool sensibility - also characterized the new media publishing cultures of *HotWired* (especially *Suck*), early blogging and, to a lesser extent, *Slashdot*. At *HotWired*, this grew out of *Wired*'s own rebel cool and 'outsider' journalism, but was particularly apparent in *Suck.com*'s daily essays debunking web hype and parodying web culture. In the *Slashdot* case, a similar ambivalence could be seen in creator Rob Malda's offhand dismissals of enthusiastic descriptions of the site's effects on journalism, but "information cool" is a perhaps a better description of its style than "new media cool," as much of the site's humor derived

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<sup>7</sup> As argued in chapter 1, the most prominent uses of cyberspace today appear to be in connection with security, especially national security (see footnote 104 from that chapter). See also Steven Shaviro's discussion of the contrasts between early virtual worlds and more recent virtual economies such as *Ultima Online*. Shaviro, Steven. 2007. "Money for Nothing: Virtual Worlds and Virtual Economies." <http://shaviro.com/Othertexts/MMOs.pdf>.

<sup>8</sup> Fitzpatrick, 2007.

<sup>9</sup> Ceglowski, 2011; Cramer, Florian. 2007. "Critique of the 'Semantic Web'." December 18. <http://www.nettime.org/Lists-Archives/nettime-l-0712/msg00043.html>.

from plays on its elaborate information architecture.<sup>10</sup> New media cool, meanwhile, was integral to early blogging. Echoing Mondo, bloggers' reflections on the form oscillated between seeing it as outside the norms of mass and mainstream media on the one hand, and as an extension of the problems of publicity, celebrity and hype on the other. This meant that irony, parody and sarcastic commentary was not only aimed at mainstream news and entertainment, but also at blogging itself.

Fourth, as Mondo's ambivalent New Edge discourse foreshadows, conceptualizations of the web's displacement of older media are not (or not necessarily) naive reactions to new technology, but richly textured cultural and historical objects. In the case of HotWired's "new publishing paradigm," for example, the belief that the new publication would tap into the web's nature or purpose was shared but also fragmented. It was a product of the Whole Earth outlook, in which cyberspace meant the paradoxical return to more organic forms of community and individual liberty through technology, but also of Louis Rossetto's conviction that the electronic frontier meant a wholesale restructuring of the media landscape and required a 'braver' editorial direction than that offered by mainstream media. It developed in diverse social networks and milieus, from Wired's editorial brain trust to the WELL and Cyborganic, and drew on a range of cultural references from Rolling Stone to New Journalism and independent 'zines. And it was couched in various conceptual models and metaphors - from the electronic frontier and the idea of "planting flags" in different content areas of the web to Rheingold's "global jam session" of collaboration.<sup>11</sup> To trace an articulation of the web as an exceptional medium, in other words, is to see how it is distributed among multiple concepts, practices and spaces. This was true for the emergence of blogging as web-native cultural form as well, where practitioners' reflections reveal its ties to 'sources' as diverse as flame-wars on Usenet and early web art. As such variety suggests, the actual composition of web-related rupture-talk and web-native culture may be counter-intuitive. This was the case with the notion of open-source news production that emerged around and to some degree on the tech-news site Slashdot, but which is an inaccurate interpretation of the site (at least in terms of its production) when looking more closely at its history. This label seems to make sense because of the close relationship between Slashdot and the excitement surrounding open-source software

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<sup>10</sup> As mentioned briefly in chapter 4, this included absurd categories for stories (the byline always reads "from the X dept.," where X is usually be a pun, ironic label, or some other form of reflexive 'distancing' from the story subject). It also included a number of community in-jokes surrounding low user id's, moderation points, "karma" and so on. Although I focused my genealogy on Slashdot's 'back-end' production, I think a more complete analysis would show how this 'front-end' style complemented - but also ambivalently commented on - the site's ambitious attempts to automate and make visible various processes of the site's production. This front-end style would thus sooner resemble the cool that Alan Liu sees as part of the informed and networked workplace, rather than the derivative "new media cool" I identified in Mondo 2000's publishing practices and form. See Liu, 2004, especially chapters 5 through 7 on cool as ethos, feeling and style.

<sup>11</sup> Wolf, 2003; Anker interview, 2010.

development in 1998 and 1999, and various commentators were quick to see in the site's user-submitted stories and clever comments moderation system an application of open source principles. However, this community infrastructure is better understood in light of Slashdot's lineage in BBS culture, and as creator Rob Malda's ad-hoc efforts to respond to various issues unrelated to a criticism of media. Slashdot's production did involve a sense of the web's displacement of previous media, but the emphasis in Malda's enthusiasm was on automation and web-enabled visibility - what I called informed media.

Fifth, understood as distributed, web exceptionalism must also be considered for how it is doubly productive, as an important source of both the web's novelty and its material and conceptual ties to previous media. Web exceptionalism, in other words, produces change and continuity in a single move. The sense (however fragmented) that the web required a new publishing paradigm led to editorial practices at HotWired and Suck that were new, even if these represented a mix of various cultural influences more than inevitabilities owing to the new medium's properties. Likewise, Slashdot's infrastructure was clearly innovative at the same time that it resonated with BBS culture, previous manifestations of the computational metaphor and the use of information technology in the workplace. Early blogging, meanwhile, marked the establishment of an important (self-)publishing genre while also shaping this as a site of continuity: blogging would be an extension of an aesthetic of transparency, internet-based community and independent media commentary, but was also seen to replicate negative qualities of mass and mainstream media such as celebrity and hype. This contradictory dynamic in early blogging - in which the exceptional status attributed to it was consistently deflated, often by the very same bloggers - is part of what I called an overarching formal logic of exposure, one that may itself be thought of in terms of its continuity with traditional publishing and broadcasting. In this way, some of the instances of web-native culture encountered in these case studies may be thought of as 'conjugated' media practices, technologies and forms. As deployed by Gabrielle Hecht, the metaphor of conjugation refers to how nuclear age rupture-talk and its inscriptions re-introduced elements of the colonial power structures that a technological society supposedly departed from.<sup>12</sup> Here, I use it to describe how the combination of web-related rupture-talk and its inscriptions in web-native culture served to re-introduce core elements of previous media, including the mass and mainstream media supposedly being displaced by the web. HotWired's editorial direction, for example, conjugated that of predecessors in independent publishing, from the New Journalism of the 1970s to 1990s 'zine

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<sup>12</sup> Hecht, 2002.

publishing. Blogging, far from displacing the conventions and logics of mass and mainstream media, re-established key values (such as transparency, celebrity and exposure) within a new form.

Sixth, the genealogies of web exceptionalism presented here may be seen to engage critically with the popular periodization of Web 2.0, in particular the distinction between the top-down, one-way communication of the publishing paradigm and the bottom-up, collaborative media production of a new paradigm of participation.<sup>13</sup> The case studies have shown how elements of the participatory paradigm were present early on, but more importantly they bring the assumption of an opposition between these paradigms into question. As seen in the case of HotWired, not only did prominent debates about the value of editorial over amateur content foreshadow those that would occur many years later around Wikipedia, YouTube and other platforms, but HotWired's own 1997 makeover as a platform for participatory web culture suggests some ways in which publishing formatted participation.<sup>14</sup> To participate through HotWired was to write like HotWired writers (and even have one's essay published on Suck), to design like HotWired designers and so on: participation was about "transforming visitors from outsiders to insiders," and thus fit within Wired's ambition to be an arbiter of style for the new medium.<sup>15</sup> Although the various community and customization features developed at Slashdot were central figures in accounts of a new paradigm of participatory, open news, their genealogy reveals the very different goals and logics of automated community management and an "informed" media product.<sup>16</sup> In the case of blogging, I argued against the assumption in Web 2.0 discourses that participation means the expansion of a technological ideal of 'openness' to media production. Rather, the formal logic of exposure that I identified in blogging should be understood as the opposite, i.e. the expansion of a publishing logic to new domains of socio-technical practice.

Although a focus on the productive capacity of web exceptionalism and a critical engagement with Web 2.0 are this study's strengths, they also point to its major limitation. As a history of web publishing, the scope of this dissertation has been very narrow, and the cases are not representative of web publishing more broadly - neither of the period in which they emerged, or in the sense of 'pioneering' what was to come. Similarly, this history does not deal in any direct way with important structural issues such as the economics of web publishing in relation to its predecessors,

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<sup>13</sup> O'Reilly, 2005; Kelly, 2005.

<sup>14</sup> Keen, 2007.

<sup>15</sup> June Cohen, quoted in Frauenfelder, 1997.

<sup>16</sup> Zuboff, 1988.

nor does it address reception.<sup>17</sup> Rather, such topics only emerge within the specific cases to the extent that they affected notions of the web's displacement of previous media and the establishment of web-native culture. As I discuss in the following section, the value of genealogies of web exceptionalism lies elsewhere, namely in how these reveal the persistence of more contingent and conceptual 'legacies' from previous media and other domains.

## Towards the study of web exceptionalism and legacy systems

This dissertation's relevance to the field can be seen in how it ties together two different, important strands within new media studies. On the one hand, I have looked to build on a 20-plus year tradition of criticism and research questioning prominent speculative and utopian accounts of new media, beginning perhaps with Vivian Sobchack's essay on *Mondo 2000* (originally published in 1992) and extending into work such as Fred Turner's history of cyberspace and various critical accounts of blogging, social media and Web 2.0.<sup>18</sup> On the other, I have sought to contribute to the emerging field of web history by analyzing key events and innovations within the history of web publishing during the period now commonly referred to as Web 1.0, while focusing on significant media practices, technologies and forms that have been articulated as native to the new medium. My original contribution has been to show how web-related rupture-talk has shaped web-native culture as a site of continuity.

The novelty of my approach to web exceptionalism and web publishing history similarly lies in this combination of two objects - web-related rupture-talk and web-native culture - that have not yet explicitly been studied together, as well as my emphasis on genealogy, or the contexts in which instances of web exceptionalism have emerged. However, since the various case studies have differed in terms of precise object of study and mode of analysis, it is worth briefly summarizing and generalizing these in a way that could be useful for further research. What I have done is collect and analyze articulations of the web as exceptional, i.e. various historical instances of web-related rupture-talk and web-native culture, and the relationships between them. This is a heterogeneous corpus, in that it includes discursive or rhetorical expressions (concepts, narratives, arguments, metaphors, etc.) as well as various material ones: the media practices, technologies and forms considered aligned with the web's nature, purpose or inherent capacity. This heterogeneity, combined with the availability of resources and, most importantly, the specificity of each case, led

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<sup>17</sup> For an overview of work within web history, and particularly the history of web publishing, see Brügger, Niels, ed. 2010. *Web History*. New York: Peter Lang.

<sup>18</sup> Sobchack, 1994; Turner, 2006; Lovink, 2008; Van Dijck, José, and David Nieborg. 2009. "Wikinomics and Its Discontents: a Critical Analysis of Web 2.0 Business Manifestos." *New Media & Society* 11 (5): 855–874.

to qualitative differences in approach, even if the basic outline of genealogy remained the same. In the case of HotWired, discussions and arguments about the web's purpose or nature - recorded in a variety of forms, from press material and contemporaneous interviews to email communications and historical accounts - were tied to various concerns about the nature of content 'required' by the new medium, from debates about how much readers should be involved in contributing content to the style of reporting suited to the new environment. To understand the dynamics of rupture-talk and web-native culture in this case meant contextualizing editorial practices and decisions based on the analysis of the social and cultural milieus - what I have called HotWired's producer culture or new media publishing culture - in which they emerged. The Slashdot case was similar, in that the rupture-talk of open-source news directed attention to the site's story submission and comments moderation infrastructure. Here, however, contextualizing the production of Slashdot's community infrastructure meant venturing into biographical history (including Malda's immersion in BBS culture) and technological history, alongside the primary resource of Slashdot's archives. In the case of blogging, meanwhile, the focus was on the properties and conventions that established blogging as a genre or, more accurately, a cultural form, and the affordances of this form for transparency, community, insightful analysis and meaningful communication, but also for performance, celebrity and hype. Here, all of the relevant 'action' - web-related rupture-talk, the articulation of the form as web-native, as well as traces of early blogging as a new media publishing culture (i.e. the visible social and cultural contexts in terms of specific interactions and influences) - could be found within a set of influential reflections on the form. Because this case focused on media form, I was able to draw more directly from media studies, in particular Raymond Williams's analysis of television as cultural form, whereas the approaches in the HotWired and Slashdot cases sooner resemble contextualizing histories of science and technology, such as Peter Galison's work on the cybernetic vision and Fred Turner's account of the history of cyberculture.<sup>19</sup>

Despite these differences among the case studies, what I have effectively done in this dissertation is create an 'expanded view' of web exceptionalism as I initially defined it in the introduction. In tracing the dynamics of web-related rupture-talk and web-native culture within specific new media publishing cultures, the various case studies have revealed the continuities and resonances that may be summarized as web exceptionalism's 'legacy systems' (see table 2). In computing, a legacy system is "software or hardware that has been superseded but is difficult to replace because of its wide use."<sup>20</sup> Seen from the perspectives of a technological ideal of efficient

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<sup>19</sup> Williams, [1974]2003; Galison, 1994; Turner, 2006.

<sup>20</sup> "Legacy." 2013. *Oxford Dictionaries*. Accessed March 11. <http://oxforddictionaries.com/definition/english/legacy>.

performance or a commercial strategy of selling newer product, legacy systems carry a negative connotation as they interrupt progress. The concept is also nebulous, however, and some have argued against the notion that legacy simply means outdated technology. Bjarne Stroustrup, the creator of the C++ programming language, writes that legacy code “is a term often used derogatorily” but that this code “often differs from its suggested alternative by actually working and scaling.”<sup>21</sup> Elsewhere, legacy code has been defined not in terms of programming language ‘vintage,’ but essentially as inherited code that for various reasons - poor documentation chief among them - constrains future action.<sup>22</sup> Within organizational management, meanwhile, what is outdated might not be the technology so much as the quantity and quality of activities and operations that a given system was built to sustain - here the question becomes to what extent a system may be evolved as this context changes.<sup>23</sup> The common thread, perhaps, is that legacies in computing imply dependency but not determinism. Here I would like to suggest that a metaphorical use in the context of web exceptionalism serves to illustrate how cases of web-related rupture-talk and web-native culture are steered by existing concepts, social and cultural contexts, as well as previous media practices, technologies and forms. In this use as in computing, legacy systems may be foundational but do not fully determine what is built on top.

*Table 3: Web exceptionalisms (expanded view)*

<b>New media publishing culture</b>	<b>Rupture-talk</b>	<b>“Web-native” qualities</b>	<b>Legacy systems</b>
HotWired (1994-1997)	“New Publishing Paradigm”	Editorial practices and style	Cyberspace and electronic frontier, communitarian counterculture, new media cool, New Journalism, ‘zine and other independent publishing
Slashdot (1997-1999)	“Open-source news”	Community infrastructure	BBS culture, open source movement, computational metaphor, informed work

<sup>21</sup> Stroustrup, Bjarne. n.d. “FAQ.” *Stroustrup.com*. Accessed March 20, 2013. [http://www.stroustrup.com/bs\\_faq.html](http://www.stroustrup.com/bs_faq.html).

<sup>22</sup> Feathers, Michael. 2004. *Working Effectively with Legacy Code*. Upper Saddle River, NJ: Prentice Hall PTR.

<sup>23</sup> Bisbal et al, 1999.

Early Blogging (1998-2002)	“Web-native” publishing	Cultural form (formal properties and conventions related to production, presentation and structure)	Reflexive aesthetic of transparency-through-mediation (e.g. Dave Eggers, Ana Voog), celebrity culture, independent journalism, new media cool
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The concept of legacy systems serves two main purposes. First, it provides an overarching category for the wide range of social, cultural and technological phenomena that are nonetheless made common within instances of web exceptionalism. These have included utopian configurations of the computational metaphor and its lineages in cybernetics and the counterculture, cybercultural style as it appeared in *Mondo 2000*, as well as various other concepts, aesthetics, values, practices and forms associated with previous media and technology. One might further expand this view to include the many social groups and cultural and institutional contexts - from loose networks of Bay Area web producers to open-source software companies and ‘A-list’ bloggers - that helped establish and operated through the new media publishing cultures of HotWired, Slashdot and early blogging. Second, the metaphor provides a concise description of the dynamic repeatedly seen throughout the various case studies, of the past’s persistence through new media practices, technologies and forms.

I began this dissertation by asking how to situate web exceptionalism historically, and how narratives of the web’s displacement of mass and mainstream media have affected the media practices, technologies and forms considered to be web-native. The notion of legacy systems helps to clarify the answers I have provided. I have demonstrated, for instance, how cyberculture - however dated it may appear to be - continues to resonate beyond the concept of cyberspace. Legacy systems such as the computational metaphor and new media cool may be seen not only to extend beyond their prominent expressions in the early 1990s, but to do so in ways that help produce new practices, technologies and forms, from HotWired’s editorial direction and Slashdot’s innovative community and content management infrastructure to blogging as cultural form. In addition to demonstrating a relationship between cyberculture and subsequent notions of the web as an exceptional medium, I have shown how web-related rupture-talk has shaped web-native culture as sites of continuity. Notions of the web’s displacement of mass and mainstream media encountered in the case studies - HotWired’s new publishing paradigm, the Slashdot vision of an automated and visible media environment and early practitioners’ descriptions of blogging as web-native and a renewal of the web’s promise - aligned associated practices, technologies and forms with (among other things) prior publishing practices, the use of database technologies in the

workplace and the values, formal conventions and excesses of mass and mainstream media. Investigations of web exceptionalism, in other words, became a study of the legacy systems underlying it.

Although my focus has been on specific instances of rupture-talk related to the displacement of mass and mainstream media, legacy systems also points to the possibility of a broader research agenda covering notions of the web's newness or rupture within other domains (such as education and government). Its usefulness may also be considered in light of one the central themes in this dissertation concerning the productive capacity of concepts and metaphors, from cyberspace to visions of informed media and various conceptualizations of the web's nature. Perhaps the concept of legacy systems, through this dissertation and further research, can provide a constructive intervention in how we understand both the web's novelty and its connections to the past.