

Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org

by

Anita J. Chan

B.A. Journalism, Women's Studies  
New York University, 1998

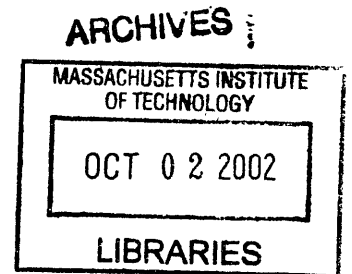
SUBMITTED TO THE DEPARTMENT OF COMPARATIVE MEDIA STUDIES IN THE  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN COMPARATIVE MEDIA STUDIES  
AT THE  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2002

© 2002 Anita J. Chan. All rights reserved.

The author hereby grants to MIT permission to reproduce  
and to distribute publicly paper and electronic  
copies of this thesis document in whole or in part.



Signature of Author: \_\_\_\_\_

Anita J. Chan  
March 20, 2002

Certified by: \_\_\_\_\_

Joseph Dumit  
Associate Professor of Science, Technology and Society  
Thesis Supervisor

Accepted by: \_\_\_\_\_

Henry Jenkins III  
Professor of Literature and Comparative Media Studies  
Chairman, Committee for Graduate Students

**Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org**

by

Anita J. Chan

Submitted to the Department of Comparative Media Studies  
on May 20, 2002 in the partial fulfillment of the  
requirements for the degree of Master of Science in  
Comparative Media Studies.

**ABSTRACT**

The growth and spread of the Internet have generated new possibilities for public participation with news content, forcing news scholars and makers alike to confront a number of questions about what the nature, role and function of news, journalists, and audiences are in a networked society. If news gathering, reporting, and circulation had existed for generations as a largely centralized process, left to the minds and hands of reporters organized through news rooms across the nation, the environment of the Internet and interactive properties of new media counter such a model, affording users with as much capacity to produce their own news content as they have had to merely consume it.

This thesis, then, seeks to contribute to scholarship on online journalism through an ethnographic study of the five-year-old, technology-centered news site Slashdot.org as an emerging model of online news production and distribution I call a collaborative new network. Embodying a pronounced case of the decentralization of editorial control in online news environments, Slashdot's collaborative news network operates through an inscription of users as the primary producers of news content; an expansion of an understanding of the site of news to include not just journalistic reports and articles, but the discussion by users around them; debate around issues of editorial authority; a valuation of subjectivity and transparency as properties of news; and the generation of user-driven forms of collective action whose effects extend beyond the environment of Slashdot's network.

This study will focus, then, on an examination of the social practices and processes surrounding the production, consumption and distribution of news on Slashdot, and the meanings that are generated through such activities. Through such an analysis, I hope to explore how practices enacted on Slashdot (re)construct users' relationship to news, editors, and one another – and similarly investigate how it (re)constructs editors relationship to news, readers, and one another.

Thesis Supervisor: Joseph Dumit

Title: Associate Professor of Science, Technology and Society

## ACKNOWLEDGMENTS

Many thanks to the users and editors of Slashdot who generously took the time to speak to me -- sharing their stories and experiences by phone, by email, in their homes, offices, and area cafes, with an otherwise strange and anonymous researcher. Without their honesty and frankness, this work would obviously never have been completed.

My appreciation goes out to Slashdot's editorial team in particular — Rob Malda, Jeff Bates, Timothy Lord, Michael Sims and Cliff Wood — whose imagination and dedication to Slashdot makes work such as this one possible — and whose humor and insight, as significantly, make work such as this one a pleasure to conduct.

Many, many thanks as well to Joe Dumit, Pablo Boczkowski, Frederick Turner, and William Uricchio, whose intellectual guidance, patience and support invaluable contributed to the shaping of this study in all its various stages and articulations. I'm endlessly fortunate to have been able to work with each, as individuals and collectively as a team. One would be hard-pressed to find a keener set of eyes with which to search out gaps and bridges of thought, discover fresh problems and raise new challenges.

My gratitude goes out to Henry Jenkins of the Comparative Media Studies Department at MIT, whose vision with CMS and tireless commitment to its students and staff never fails to inspire.

My thanks as well to the CMS graduate students, class of 2002 – Candis, Daniel, Sophie, Elin, Qi, Margaret, and Michelle – who supplied ample and vital doses of critique, silliness, and mid-thesis snacks upon request.

Thanks, for what are often the things I most take for granted, to my family – Mom, Roger, Rosie, Grandpa and Grandma – whose spirit and warmth, from all their various corners of the planet, have guided all that I am and do.

And, finally, my deepest thanks to Avijit Ghosh, sparring partner, personal editor, and pillar of support, who first set my eyes upon Slashdot, and who has never failed to keep the world fresh, intriguing and brimming with a sea of new curiosities.

## TABLE OF CONTENTS

Chap 1: Introduction .....	5
Exploring Collaborative News Networks .....	8
Slashdot: Users, Uses, Utilities .....	12
Defining and Debating "News" on the Network .....	16
Slashdot as a Collaborative News Network .....	26
Chapter 2: Active Users and the Collaborative Construction of News .....	35
Social Constructivism, Users, and News Production .....	38
Users as Story Sources: The Submissions Bin .....	40
Segregating Audiences and News Sourcing .....	44
Integrating Users as News Sources .....	47
Users as News Critics: Discussion Forums and Moderation .....	50
Segregating Audiences and News Analysis .....	55
Integrating Audiences and News Analysis .....	56
Reading News through Discussion .....	59
Transforming the User-News Relationship .....	62
Chapter 3: Distributed Editing and the Decentralization of Editorial Control .....	73
Heterarchy and the Polyphony of Editorial Styles .....	75
Hierarchy, Conformity and Control in News Production .....	77
Collaborative News Networks as Heterarchy .....	83
Submissions Bin: The Diversification of Editorial Styles .....	85
Submissions Bin: Negotiating User Interests .....	90
From Objectivity to Openness in News .....	95
Building Accountability among Producers .....	99
Chapter 4: Community, Contest and Collective Action on the Network .....	107
Approaching News Production as Collective Action .....	113
Representing Tactics of Collaborative News Networks .....	117
Network Activism as Collective Action .....	120
Network Effects as Collective Action .....	127
Network Divisions as Collective Action .....	134
Network Protest as Collective Action .....	136
Chapter 5: Conclusion .....	148



Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org  
Chapter One: Introduction

Early in October 1999, Johan Ingles-le Nobel, the editor of the international defense and security journal Jane's Intelligence Review, decided to cancel the publication of an article on cyberterrorism planned for its following edition. It was a small blip in the history of journalism that would likely have gone unnoticed, if not for the unique circumstances surrounding the article's retraction – specifically that it came shortly after Ingles-le Nobel submitted the Jane's article for posting to the online technology news discussion and community site Slashdot.org ([www.slashdot.org](http://www.slashdot.org)) to solicit feedback from the site's readers on its quality. (Slashdot.org, 1999, October 4) Though just two-years-old at the time, Slashdot had become a virtual meeting grounds for thousands of technology enthusiasts who routinely read the site's daily updated log of “news for nerds.” Asking readers to “keep it clean and stay objective” in their replies, Ingles-le Nobel's submission appeared among the fifteen stories that were posted to the site that day, nestled between a post on the release of the Red Hat's release of version 6.1 of its Linux-based operating system and another on Australia's tech industry's support of child-appropriate content regulation.

Within hours, more than 250 responses to the article, the majority of them disapproving, were posted to Slashdot. One reader observed, “the article is definitely making a mistake in bunching together Cyber threats and CBRN [chemical, biological, radioactive, and nuclear attacks]. They are different... in all possible ways except in that they are [both] relatively new threats.” Another commented, “The tone is unreasonably alarmist. It makes no distinction between cyberterrorism, which is an attack upon C3I (command, control, communications & intelligence) systems, both military and civil, and terrorists using their own cyber C3I.” And another quipped, “The intense focus on ‘shut down the power grid’ scenarios, and the tight

analogies [between cyber terrorism] with physically violent techniques [such as chemical, biological, radioactive, and nuclear attacks] ... serve only to ignore much more potentially effective uses of IT in terrorist warfare: intelligence-gathering, counterintelligence, and disinformation. The article does not touch on these points at all, and quite frankly is worthless sensationalism without them.”

Alarmed but grateful for the response he had received from Slashdot’s readers, a second post from Ingles-le Nobel appeared on the site three days later. (Slashdot.org, 1999, October 7) In it, the Jane’s editor specified that in addition to the commentary posted to Slashdot, he had received an additional 35 personal emails from readers of the site who represented professions as diverse as “psychologists to network analysts, and from Sun engineers to Cambridge Dons.” Thanking Slashdot’s readers for their critiques and contributions, Ingles-le Nobel wrote, “The responses have been insightful and knowledgeable, with many excellent points made. I’ve even had a lot of ‘thank-you’ type letters from computer security professionals for trying this approach... And since roughly 99% of the posters slammed the article... I’ve informed the author that we’re not going to run with it.” Instead, Ingles-le Nobel stated, an entirely fresh piece would be printed in the December issue that would incorporate material and suggestions from Slashdot readers.

Within days of Jane’s decision to retract the original article, a heated debate erupted within the mainstream reporting community. Career journalists like PBS Online columnist and Silicon Valley documentarian Robert X. Cringley accused Jane’s editor of sanctioning “the censorship of the nerderati,” (Cringley, 1999, October 7) and of “[throwing] his cyberterrorism research at the nerds who read Slashdot, hoping for some inexpensive proofreading to keep Jane’s from making their own big mistakes.” Continuing his rebuke in his weekly column “The Pulpit,” Cringley added, “This is an interesting idea but ultimately flawed, I think. The only way to

write the news is to write the news. You have to do it the best that you can then take the heat... That's why newspapers make corrections."

If Cringley problematized Jane's unorthodox measures in news editing, insisting that news production remain the exclusive domain of professional journalists, however, others read the move as significantly less troubling. Rich Jaroslovsky, the managing editor of the Wall Street Journal Interactive Edition and president of the Online News Association, defended the decision, disputing that any act of censorship had been committed since the original article had been made public in its publishing on Slashdot, "which is just as real an act of 'publishing' as publishing it on its own site, or pages." He added that editors had a right to withhold publication of an article "until [their] doubts [about it] are satisfied." (Moon, 1999, October 10) Salon.com senior correspondent Andrew Leonard voiced further support of Jane's method in his own weekly column, citing Slashdot as "a new kind of journalism," that "provides great value simply" in aggregating the "expertise" of its readers. (Leonard, 1999, October 8) Emphasizing the service that news audiences might provide news professionals, Leonard added, "The Jane's incident takes Slashdot's evolution one major step forward. Slashdot readers are now actively shaping media coverage of the topics... They are helping journalists get the story *right*, which is a far cry from exerting censorship."

While the controversy surrounding the Jane's decision has since simmered, the question over the position and state of online journalism, and what precisely the implications are of the "new kind of journalism" Slashdot embodies, continues to press news workers, scholars and publics alike. For with the growth and expansion of online journalism have come new possibilities for public interaction with news content, forcing scholars and professionals to confront a number of questions about what the roles and functions of news, journalists, and audiences are in a networked society. If news gathering, reporting, and circulation has existed for generations as a largely centralized process, left to the minds and hands of professional

journalists working in news institutions across the nation, the environment of the Internet and interactive properties of new media introduce changes to such a model, affording users with as much capacity to produce their own news content as they have had to merely consume it.

At the heart of the issue then, is a dilemma over what will happen to the authority, objectivity and value of journalism when the functions of reporting, editing, verifying and distributing news are no longer left to the operations of newsrooms alone, but can be dispersed over a largely unrestricted body of anonymous users. Crucial, as well, for many scholars and professionals of news is the question of what will happen to a public served by and purportedly dependent on the trustworthiness of news if the shared traditions and standards of the journalistic profession no longer collectively apply. Such disputes over the implications of online news then, involve not only issues of what implications new media properties will have on the production, distribution and content of traditional news, but rather crucially center on questions of how users themselves, through social practices enabled by new technologies, are re-shaping the definition of news, newsmaking, and expertise.

### *Exploring Collaborative News Networks*

This study seeks to contribute to the scholarship on online journalism through an exploration, informed by ethnographic methods, of Slashdot as an emergent model of online news production and distribution enabled by what I shall refer to as a collaborative news network. Operating with minimal editorial staff, and often run independently from any established news organization, collaborative news networks are a unique manifestation of online journalism in their reliance on a large, physically dispersed and anonymous body of site users to produce the nearly all news content. What new practices, roles and relationships emerge from users and editors of the site through participation in a collaborative news network,

and how such emergent practices may impact a larger social world beyond the network itself is part of what this thesis seeks to begin to unravel.

Drawn in part from Walter Powell's notion of network organizations (Powell, 1990), collaborative news networks operate through internal structures and logics distinct from traditional news organizations that attempt to maximize internal order by enforcing a hierarchical system of control and establishing standards in production practices. In network organizations, "transactions occur neither through discrete exchanges nor by administrative fiat, but through networks of individuals engaged in reciprocal, preferential, mutually supportive actions." (p. 303)

Unsurprisingly, as well, the concept of a collaborative news network draws from the notion of a computerized network, through which users, working from devices interconnected in a system of cables and lines, can share resources, swap information, and communicate from distinct points within the structure. News and information can flow, in such a system, from a multiplicity of origins and authors along any number of paths, changing in content and meaning as it does so. Unlike mass media's streamlined architecture, where information is directed from a single point of origin, maintaining stability and immutability as it travels, news has no particular point of destination as it moves within a collaborative news network. Information may flow back and forth between readers and authors, or between users and editors in a continuous cycle of exchange and revision.

Most crucially, this study of Slashdot as a collaborative news network builds upon the analytical framework developed through Pablo Boczkowski's work on the technical, organizational and editorial changes that take place within established newspapers through the incorporation of user-authored content in their online publications. Conceptualizing such transformations as constituting a regime of "distributed construction," Boczkowski argues that such regimes may be characterized by, "a) an information architecture inscribing users as information co-constructors and configuring a multi-directional network of message flows, b) and

editorial function centered upon the facilitation of content created by a heterogeneous set of users,... c) a coordination of productive activities bringing forth an organizational form based upon relationships of interdependence, distributed authority and multiple rationalities,” (2001, p. 30) and d), “a network of information flows in which every source can be source and destination of messages of potentially both generalized and specialized character.” (2002, p. 278) Merging theoretical perspectives from organizational studies – in particular work on decentralized organizational forms, technology studies – in particular work on the inscription of artifacts, and communication, Boczkowski’s conceptualization of distributed construction provides a lens into new modes of production that newspapers have innovated in providing space for user-contributed content on their online sites. By emphasizing news professionals’ departure from traditional production processes and a heightened reception towards audiences in the construction of an online news presence, his work significantly unravels a separation between news audiences and makers that characterizes much writing on news production.

Embodying a pronounced case of the decentralization of editorial control within an online environment, Slashdot likewise exhibits properties of distributed construction. With origins divorced from any established news organization and with a significantly heightened reliance on users for the construction of site content, however, Slashdot also operates with several additional attributes that distinguish news exchange and construction in a collaborative news network. These include the elevation of the expertise of users, who, inscribed as the *primary* producers of news content, act as both sources for stories as well as commentators for them; an expansion of an understanding of the site of news to include not just journalistic reports and articles, but the discussion by users around them; debate around issues of editorial authority; a valuation of subjectivity and transparency as properties of news; and the generation of user-driven forms of collective action whose effects extend beyond the environment of Slashdot’s network.

A consideration of Slashdot as a collaborative news network, then, lends itself to work on online journalism on multiple fronts, enabling a study of users' participation, and interpretation of that participation, as the site's dominant news content producers, as well as an interrogation of the complex relationship that unfolds between users and editors when traditional editorial functions are dispersed and displaced among a broad user base. While scholarship on online news has focused on the online production processes or usage of established news organizations, few have begun to closely consider those of emergent forms of online news authored by non-traditional producers. Similarly, while studies of online news have investigated the potentials of users to influence and contribute to content in interactive environments, few have been able to consider users' practices and roles as the primary authors of news content themselves. And while other studies of the consumption of online journalism have argued, with hints of techno-determinism, of it as either potentially leading to the degeneration of audience knowledge and public engagement, or to a revitalization of both, few have formulated a more nuanced reading of users' – and editors' – transforming relationships to online news and one another.

This study attempts to provide a lens into such areas of inquiry through an investigation of the multiple editor and user practices and perspectives that flow through Slashdot. Analyzing as primary data sources interviews, conducted both in person and by phone, with the five content editors of Slashdot who were active during the time of this study (from Fall 2001 to Spring 2002) and with 20 users, observations of user and editor practices in home and office settings, and an analysis of the site's own features, functionalities, and archived content, I hope to explore how practices enacted within a collaborative news network (re)construct users' relationship to news, editors, and one another – and similarly investigate how they (re)construct editors relationship to news, users, and one another. Necessarily, as well, I hope to explore what new complications, potentials and limitations emerge when news is constructed and

exchanged through collaborative news networks. For indeed, contrary to depictions of online news as either inherently leading to a degeneration or a revitalization of a participatory public, that would both suggest a linear relationship between users, editors, and news, news exchange and construction on Slashdot's collaborative news network reveals itself to sustain and be sustained by a complex layering of interactions between editors and users that neither completely eludes nor completely realizes a virtual democracy.

*Slashdot: Users, Uses, Utilities*

For a site that has been proclaimed to have launched a “new kind of journalism,” and which has cultivated an audience base as large as many of the nation's leading online general and technology-centered news sites, Slashdot had relatively modest beginnings. It was founded in September 1997 as a personal web log by Rob Malda, then a college undergraduate studying art and computer science at Hope College in his hometown of Holland, Michigan. Having participated in and operated an electronic bulletin board system in high school, Malda used the site to post news and personal musings on technology and in particular, Linux programming. As readers began to filter additional news links and anecdotes through email to Malda, those too became incorporated as content for the site. Known on Slashdot by his handle, Cmdr Taco, Malda describes his motivation for expanding and maintaining Slashdot as being that “I enjoyed the emails I was getting from people [who visited it]. I enjoyed writing reviews and sharing things I thought were fun. Slashdot was just an extension of that with a bit of code to ease the work.” (personal communication, December, 13, 2001) While readers continued to email Malda links to items, articles and sites they found interesting, the new code, added only a few weeks of the site's initial debut, introduced discussion forums to the site as a new space for users to add feedback – a signature feature that would evolve as Slashdot and its audience grew.



By early 1999, within just a year and a half of its founding, Slashdot's daily readership had expanded to around 70,000, and Malda was recruiting the help of friends to assist in editing the site. Such growth was enough to compel Andover.net, a Massachusetts-based publisher of several open source related news and development sites, to offer 1.5 million dollars in cash for the site. In June 1999, Slashdot became the newest property of Andover, which was in turn bought in 2000 by V.A. Software (then known as V.A. Linux) in a deal valued then at 975 million dollars.

Just shy of five years old, Slashdot today attracts an estimated 1.1 million unique users per month, and some 250,000 per day<sup>i</sup>, constituting an user-base as large as that of many of the nation's leading online general and technology-centered news sites. No fees are charged to visitors for accessing the site, or for personal accounts that supply a user ID to be established, allowing an unrestricted mix of actors – from editors of established journals to ordinary high school students and even anonymous contributors – to participate as users and content authors for the site. Most of the site's visitors, roughly 90 percent of them, work or study in technology-related fields. (OSDN Report, 2001) Twenty-two percent describe themselves as full-time students, while another 63 percent work full time as researchers, engineers, programmers or IT professionals. Roughly three-quarters are under 30 years of age, with about 50 percent in their twenties. And perhaps not surprisingly given the composition of the technology sector, an overwhelming proportion – at an estimated 95 percent – of the site's visitors are male.

The numbers, however tell only part of the story. There is likely no better indicator of who Slashdot's readers are on any particular day than paying a simple visit to the site, where the nearly all content is generated by users themselves. In form, Slashdot looks not unlike a largely expanded message board, with its main page appearing as a daily updated vertical list of 15 to 20 story blocks that were all nearly entirely composed and submitted by the site's users.<sup>ii</sup> (See Figure 1) Any visitor to the site may author a story summary – from those with established

accounts and a specific user ID to the site, to those who wish to contribute anonymously. Most story blocks contain a brief, paragraph-long summary of a news item, written by the contributing user, and dedicated to a variety of technology-related areas. Hyper links are typically embedded in the text that lead readers to the original source of, or related documents for, the story. While links can often lead to articles from traditional sources of news – including mainstream news outlets and journals – they also frequently lead to less official sources, including personal or independent web sites. Some 400 to 500 story summaries, on topics ranging from open source software development and the computer industry, to science, robots and anime, are submitted to Slashdot's editors per day, for consideration for posting to the site. Dependent upon what users submit, it's an unpredictable, eclectic mix of elements that composes Slashdot's news agenda. A visit to the site on Tuesday, March 19, 2002, for instance, displayed 15 story blocks, including headlines on "Larsen Ice Shelf Collapses"; "Sony's New Bi-Pedal Robot"; the "Alleged eBay Hacker Goofs up and Goes to Jail," on the unexpected incarceration of a 22-year-old accused computer hacker after a routine court appearance; the "First 802.11 Wireless Movie Theater?" in Austin, TX; a new "Pennsylvania Law Requir[ing] ISPs to Block Child Porn"; and "More on Dell Dropping Linux Support."

While the descriptions for individual news stories are typically concise, clicking into the "Read More" link attached to every story block transforms a brief news summary into a considerably different entity. Such a move draws a reader into the discussion forum associated with an individual story where fellow users can post their comments, criticisms, general musings, or additional links to other helpful online documents or web sites. For forums associated with stories on Slashdot's main page, it's common to see several hundred comments added within hours of the story's posting to the site. (See Figure 2) Originally posted to Slashdot at 7:52 a.m., the "Larsen Ice Shelf Collapses" story had had more than 1200 comments posted to its forum by 11 p.m., for instance. By the same time that night, the "First 802.11 Wireless

Movie Theater?” story, posted to the site at 5:40 p.m., had over 250 comments added to its forum. Similarly, over 600 comments had been posted to the forum by 11 p.m. for the story headlining the “Alleged eBay Hacker Goofs up and Goes to Jail,” originally posted to Slashdot at 10:18 a.m.

Unique to Slashdot’s discussion boards is a moderation feature that affords users the ability to better manage the flood of commentary posted, allowing them to rate and re-organize forum content. Through the moderation feature, a temporarily selected body of users is able to assign merit to, or detract merit from, individual comments on a point-scaled basis ranging from –1 to 5. Fellow users are then able to filter comments in discussion forums according to the aggregation of the points assigned, rendering visible only comments scored at or above a selected threshold, and reorganizing the forum content to appear in more compressed volume.

Open and interactive, discussion forums become a space where users can participate in a collective reshaping of an original news story, modifying its coverage, contesting reported details, or introducing additional relevant information. As significantly, discussion forums provide a space for users to react to one another to refine a comment previously posted or contest opinions expressed by fellow users. Within the realm of the discussion boards, where information springs from multiple points of origin with a diversity of intentions, a news story reveals itself as an object undergoing a continual process of revision and remaking. Rather than simplifying or streamlining flows of information from, for instance, authors exclusively to users, Slashdot’s collaborative news network operates on a dedicated openness to allowing such a diversity of currents to flourish and multiply. It may be, in fact, only when such flows merge into a single, steady stream of thought that the collaborative news network most risks unraveling.

*Defining and Debating "News" on the Network*

Still partly based in Holland, MI, Slashdot's single-man editorial operation, with Malda alone at the helm, has expanded today to include a team of five people: Malda, Jeff "Hemos" Bates, Timothy Lord, Michael Sims, and Cliff Wood. Scattered across five separate states in the Midwest, Northeast, and South, the five work remotely, converging in an instant relay chat (IRC) channel for large portions of the day as a sort of virtual office. While one of the five – Lord – had worked as an undergraduate at his college newspaper, none of the others had any prior training or professional experience working in journalism. For Malda and Bates, Slashdot provided one of their first full-time jobs after graduating from college; for Sims and Wood, it was a job taken after working several years as programmers. Perhaps the single crucial experience all the editors (save Malda) shared in common was that they had been avid readers of the site before being hired, with some having even worked previously on a volunteer-basis to help edit the site.

Significant as well is that only two of the five – Lord and Sims – work exclusively in their editorial roles, while the other three work in additional part time roles to manage, administer and program code for the site. While editing, most of their time is spent culling through the 400 to 500 story submissions readers submit to them through the site's submission bin, selecting the portion of those stories that will appear on the site.

How the intertwining practices of what Malda himself describes as "a loose committee of editors and a gigantic hoard of contributors," (personal communication, December 13, 2001) constitutes a network of news exchange lends itself to much of the current discussion around online news, expanding notions of how online news is produced, how it is used and what potentials for interactivity it may yet yield. For with the growth of new media and the transition of news to online environments, it is precisely these questions of what is (or will be) that constitutes news, what essential qualities of journalism are under redefinition, and what impacts

such changes will have on the professions and publics that rely on news, that scholars of journalism return to with heightened urgency.

Among the primary areas of inquiry scholars of news have begun to consider is how the Internet – whether defined as a technological utility or as alternative media presence – will affect the roles, practices and social status of professional journalism and journalists. Characterizing the dominant form of online sites as ones assembled from duplications of news articles published in print or from their parent medium (Neuberger, Tonnemacher, Biebl & Duck, 1998), some scholars have begun referring to such news sites as constituting “shovelware” sites. (Deuze, 2000; Martin and Hansen, 1998; Massey & Levy, 1999) Arguing that such a model for online news production may not be adequate, however, to audiences who may increasingly expect more functionality from a news site, Philip Sieb (2001) has urged news makers to better leverage the potentials for media convergence on their sites. For Sieb, this convergent environment would construct a common online destination “where the products of various media will be delivered.” (p. 6) Positioning the Internet and the emergent models of news exchange that grow from it as a potential threat to the traditions of journalism, Sieb warns that unless “journalists reconsider their roles as providers of information to the public, they may find themselves increasingly irrelevant, left behind by a new generation of communicators (who might or might not call themselves journalists).” (p. 14) Similarly criticizing many mainstream news professionals for “remain[ing] tentative or even fearful of their computers” as professional research tools (Garrison, 1998, p. 18), Bruce Garrison has advocated that reporters take greater advantage of computer-assisted reporting techniques for information gathering. (2000)

Other scholars, however, have looked at online news environments as leading to an unraveling of established news production practices, and potentially, violating professional ethics of “fair” and “factual” reporting. John Newhagen, for instance, has described the Internet as a “web of interconnected nodes... [where] any user is equally likely to be a message receiver

or a sender during any given communication cycle” (1998, p. 117), but which necessitates a “reassessment of the utility of mass media bound concepts such as credibility and raises new questions about how users will assess information online.” (p. 117) Recognizing online interactivity as allowing news audiences to not merely self-select news, but to participate in its circulation and construction, Newhagen and Levy have argued that the standardization of news making and the concentration of journalistic authority among a “professional elite” developed as a means to maintain “quality control” and “accuracy, balance and fairness” (1998, p. 14) in information, and that such protections may be eroded in online distributed network architectures. In a system where information producers “are more likely to be peers,” they write, “it is difficult to imagine how this verification function might work.” (1998, p. 17)

Building from a similar recognition that the interactive properties of the Internet afford audiences greater capacities to produce and circulate news online, other scholars have predicted that the traditional function and processes of professional journalism will be eroded under such conditions. (Bardoel, 1996; Singer, 1997, 1998) These authors have argued, however, that professional news workers should not anticipate that their roles will be rendered obsolete by online audiences, but that they may become more valuable as “[providers] of meaning” (Bardoel, p. 297) and one of the last “strongholds of generalism” for a body of citizens who “more than ever, ...need... common orientation.” (p. 299) Adding that the news judgment and quality control function of professional journalists is unlikely to be equaled by average audience members, Singer writes:

Expanded access to information makes it easy to have the world at one’s finger tips – but choosing to severely narrow one’s world scope, in possibly troublesome ways, is also easy. A professional gatekeeper selects the

information he or she thinks you need – information that, like spinach, you yourself might want to avoid. (1997, p. 82)

Voicing skepticism that online audiences will be able to appropriately select and recognize the newsworthy, and further doubtful that they will be able to adequately interpret and assign meaning to such items, such scholars reify the position and judgment of news professionals.

Valuably contributing to research on the online production processes of established newspapers, Boczkowski has studied an online newspaper's project to host and facilitate the building of web pages by non-profit organizations. (2000, 2001) By demonstrating how news professionals' work processes were expanded to support and incorporate content created by actors outside the news organization, Boczkowski crucially expands the notion of who is included in content production processes, and complicates notions of a clear separation between the functions and dependencies of news workers and audiences.

Indeed, scholars like Sheizaf Rafaeli and Robert LaRose have similarly pointed towards a need to recognize a broader body of actors in the construction of new media content.

Describing the emergence of new forms of "collaborative mass media systems" in which the "audience is the primary source of media content as well as its receiver," (1993, p. 277), they argue that such systems "represent a new and significant departure from conventional mass media forms [that] expand the very definition of mass media, from "one-to-many" to "many-to-many" communication." Reliant on audiences as active participants for the production of the majority of its content, collaborative mass media systems dispense with conventional mass media processes, where:

audience-generated mass media content [was] invariably ... subjected to a considerable degree of editorial control and ... generally constituted a relatively

small percentage of total message system content. Contributions came from such a small number of audience members that the participants were more properly regarded as symbols of the community of interest rather than a true embodiment of it. (p. 277)

Scholarship on new media's affect on the production processes and roles of traditional journalists, however, has still predominantly neglected the practices of audiences as productive participants in content generation, and has more commonly characterized the Internet as challenging the security of the news profession. Such work has often argued that online audiences and greater accessibility of online research tools have demanded the revision of long-established journalistic practices and traditions. Similarly dividing audiences and news producers into distinct, arguably oppositional camps, and reasserting a professional journalistic insistence on the separation between audiences and news makers, other work in this vein has argued that the increased potentials for online users to self-edit news could either cripple the authority and status of the news and news workers. By asserting that a heightened appreciation for the intrinsic value of traditional news workers may also result from audiences' exposure to online news, other work has emphasized audiences' dependence on news workers as both filters and interpreter of news, suggesting that audiences would inadequately perform such roles.

Boczkowski's work remains distinctive for providing an analysis of how traditional newspapers were able to productively reformulate editorial processes towards an inclusion of users as publications moved online. Significantly, his research reveals that editorial processes are neither compromised, nor seek to establish (or re-establish) editorial authority over news content, nor strive to separate audiences from news production through such a transition. While such work demonstrates the value added to news sites through a transformation of editorial



functions and an expansion of the notion of who would be responsible for such functions, little work has been done to investigate user practices in exercising, interrogating and sustaining their new capacities to produce and edit news content. And while Rafaeli and LaRose identify the emergence of new media systems where users employ a many-to-many model of production and distribution, little work has yet been done to investigate how such a model would map onto news site where users are relied upon as producers of not just a portion of content on news sites, but indeed, nearly all of it.

Research that has focused on audience consumption patterns of online news has also pointed to some of the difficulties readers may have in having to independently act as their own personal news editor. (Tewksbury & Althaus, 2000; Flanagin & Metzger, 2000) Still elevating the judgment of news professionals, such studies emphasize the differences in readers' and news professionals' preferred organization of news, the loss of editorial cues that signal news items of importance, and question users' ability to evaluate the information they are exposed to effectively. Other scholars have focused on audiences' process of assigning credibility to online news, comparing online presentations of articles to print versions (Johnson & Kaye, 1998; Sundar, 1999), or studying the effect of source attribution to readers' ability to trust online news. (Sundar, 1998) Such questions become all the more pressing to scholars given research that has positioned new media as competing with established media for audiences, suggesting that a potentially ill-serving online news may draw readers away from other, allegedly more legitimate news media. (Tewksbury & Althaus, 2000)

Other scholars, however, have looked toward online journalism with considerably more optimism, critiquing established media as having failed in its role as a civic institution and having thereby produced an alienated, political apathetic audience. Asserting that the press has treated its public "as objects to be manipulated for power and profit," (Pride, 1998, p. 129) Richard Pride has argued that a new, more participatory journalism concerned with "creat[ing] attentive

citizens" would be needed as "part of the way back to a more public life." (p. 130) Envisioning online news as a space where audiences could be educated "about the way government and media interact" and "encounter the views of other citizens," Pride argues that it may be the best hope as a tool to help "potential citizens ...grow into full citizenship." (p. 147) Advising that "newspapers [employ] media critics themselves to guide and teach" (p. 148) readers about media and the news business, and that such professional news audience educators could be main figures in online news systems, Pride predicts that "electronic newspapers could be a functional town square: news and views and criticism all together." (p. 148) Significantly, however, Pride differentiates what actors would provide which element – with news professionals allegedly supplying the news, audiences the views, and hired media critics the criticism.

Similarly hailing online journalism as a potential tool in revitalizing a democratic public, but significantly assigning more value to audiences' ability to assess news and contribute to its production, scholars have also argued that online news might revive civic participation by recruiting citizens as partners in news verification. (Deuze, 2001; Hall, 2001; Pavlik, 2001) Writing of networked audiences as potential authenticators of news, able to instantaneously report via emails perceived errors in the news pages, and of online environments as providing richer data capacities than their print or broadcast counterparts, John Pavlik argues that, "in the end, democracy will be better served by new media tools to journalism." (2001, p. 131) Emphasizing the value of enabling users to self-select the news they consume, Hall writes that online news' ability to provide content "that has direct personal relevance to their readers and ...[are] more accessible" produces "a journalism that is more accountable than their print predecessors" and results in a "democratizing of journalism that is long overdue." (2001, p. 32)

Such studies on audience use and reception of online news, however, have tended to depict a linear relationship between audiences, editors and news content. Some suggest that

audiences, less equipped to filter and assess news themselves, may become more confused in online news environments. Others suggest that audiences may be able to aid in news worker's search for objectivity, or may become more vital public participants through an exposure to self-selected news. Absent in the discussion, however, is a more complicated understanding of how audiences participate in the process of news production, and what relationships – cooperative, contentious, or otherwise – they form with the site of news the editors of news sites through such participation. Similarly, while much of the literature on audience usage has focused on the question of how the form and content of online news may enable users to assess the credibility of information delivered online, few studies have considered any social dimension to such a process. Such studies might look at, for instance, how online exchange with fellow users or editors may affect users' perception of credibility, or consider how credibility may be a constructed collectively through social practice, rather than assessed individually as a stable entity. And while studies of online news' usage have centered on its competition with other established media, few have considered how in fact online news sites may function symbiotically with other forms of media.

Issues surrounding interactivity and online news' sites provision of interactive features, has been a final area of inquiry on which scholars of journalism have critically focused attention. Typically assessing the quality of interactivity through a consideration of site features that could facilitate inter-personal communication or content customization – including online discussion forums, searchable news-story archives, the provision of content producers' email addresses, surveys, polls, and technical features that enable users to tailor content – a number of studies have concluded that many sites of established news organizations are only minimally interactive. (Deuze, 2000; Kenney, Gorelik, & Mwangi, 2000; Jankowski & van Selm, 2000; King, 1998; Massey & Levy, 1999; Newhagen, Cordes, & Levy, 1995; Schultz, 1999; Schultz, 2000) Some have pointed to an incident involving NBC News' receiving of 3,459 emails from

viewers in 1993 who were encouraged to respond to a series titled "Almost 2001" (King, 1998; Massey & Levy, 1999) as an early demonstration of the media's resistance to fully incorporating interactive tools. NBC officials said they didn't look at the messages, much less reply to them, according to King. In a survey conducted in 1998 of 100 U.S. online newspapers, Schultz (1999) found that 66 percent had no discussion forums available, 92 percent offered no synchronous chat room options, and only 24 percent conducted online polls or surveys, leading him to conclude that:

online newspapers revealed few and generally token interactive options... While most media are represented on the Internet, they do not necessarily employ the specific tools characteristic of the medium. In fact, some journalists appear horrified at the idea that readers want to engage in discussion with them. (no page number)

Neither has the absence of interactive features been specific to American newspapers. Rating several Asian online newspapers in three categories of interactivity – their responsiveness to users, the ease by which users may add information and the facilitation of interpersonal communication – Massey and Levy have concluded that, little "...was complex about the narrow range of content made available for readers' choosing." (p. 147) Continuing their analysis, they add:

Scant use was made generally of the Net's capacity for immediacy and for allowing readers to add their own content to the newspapers' sites. Options for interpersonal activity were virtually non-existent. Responsiveness to the user was sparse as well... Even through most of the newspapers provided a 'feedback'

email link at least, most of them chose – for whatever reason – to not respond to  
...email messages. (p. 147)

Critiquing that interactivity as implemented by most news organizations has been largely superficial and “poorly defined,” King has similarly argued that “although online media are more ‘interactive’ than traditional media, they have not been fully capitalized on their ability to change the relationship between news producer and consumer.” (p. 26)

Boczkowski’s work on a New Jersey newspaper’s incorporation of self-authored, non-profit websites that would be hosted by the paper is once again distinctive for challenging such characterizations of mainstream news media’s online sites as largely being sites devoid of interactivity. Demonstrating how new rooms reformulated editorial processes and designed technological features on the site to better enable user interactivity, his work uniquely provides a lens into how mainstream news web sites can become sites of editor and user interactions, collaborations, and information exchange.

While most analyses of interactivity on online news sites have focused exclusively on mainstream news sites, characterizing them as largely failing to take advantage of interactive potentials, and in particular, those for communication between users and journalists, or between users themselves, still overlooked are what uses and implementations of interactivity there have been on emergent, non-traditional online news sites. Likewise, while newer work on mainstream news site’s incorporation of user-authored web pages may be an important step in expanding uses of interactivity, it should be noted that such sites are hosted separately from the core “news” content on the site, where daily articles would appear and be refreshed. Such an integration of user-constructed content, therefore, could be argued to still maintain a substantial separation between user and editorial perspectives, reserving content devoted to the “newsworthy” to news professionals exclusively. Further, no evidence points to increased

communication or exchange between users and producers of daily news following the hosting of non-profit web pages, or to an increased ability of users to reshape the content of news articles themselves. Such a limitation of user interactivity suggests that researchers would further benefit from looking towards alternative models of online news sites that more centrally incorporate users as news content producers.

### *Slashdot as a Collaborative News Network*

This thesis is an attempt to investigate some questions concerning online news that have to date remained un- or under-explored by research that has remained predominantly concentrated in studies of online news sites established by mainstream organizations or traditional publications. Such a limiting focus on online news has largely lead to an over reliance on assessing online news through the values, assumptions and processes associated with established journalism, rather than allowing new criteria for assessment to emerge. Scholars have therefore asserted arguments for the continued separation between audiences and news professionals to maintain the integrity of journalism, or have argued that a more interactive news might lead to more a more engaged civic public and audience. Despite the qualitative differences in the implications of such arguments, both rely on definitions of the functions of audiences, editors and news that remain stabilized, and constrained by their formulations under traditional models of journalism. Such a limiting focus in research on online news has also lead, with the notable exception of Boczkowski's work (2000, 2001), to an obscuring of news environments where users *do* act as key producers of news content, and where editors perform to facilitate such action. Further, it has created an absence of research on the relationships users form with the site of news and the social interactions that flow through it when they are afforded the capacity to act as content producers.

An analysis of Slashdot's collaborative news network, however, provides a case where users have not only been incorporated as central producers of content, but are integrated in fact as *the* predominant producers of content. Blurring the functions and responsibilities of users and editors, and despite a firm resistance to a traditional isolation of editors from users, Slashdot maintains and continues to cultivate a loyal and substantially-sized audience for news. A consideration of Slashdot as a collaborative news network, however, further reveals the absence of research on the relationships users form with the site of news and the social interactions that flow through it when they are afforded the capacity to act as content producers. For indeed, participation in collective process for the construction of news transforms users' relationships and interpretations of news, fellow users, and editors in the network, creating a space where new forms of personal and collective action or protest may emerge.

In the following chapter, I will outline transformations in the roles of news audiences under such a model, where users are crucially integrated as participants in the construction of the site's news content. Drawing from an analytical framework developed by Boczkowski (2000, 2001), applying a lens of technology studies over the process of online news production, I will demonstrate how users of the site are granted extensive capacity to generate and affect site content through several prominent technological features, rather than being separated from journalistic production processes, as professional conventions and values would prescribe. Such tools enable users to submit story suggestions to editors, add comments to discussion forums, and rate and re-organize other users' comments. Closely considered within the chapter are questions of what construction – or more precisely, what multiple constructions – of audiences are inscribed within the various technological features and capacities of the site, and how do such inscriptions alter and effect users' relationship to editors and to news.

Chapter three will explore the distributed editorial model and the decentralization of control that characterizes editorial relationships within Slashdot's collaborative news network.

While the organizational culture of mainstream news media has been argued to constrain news production processes, centralizing control within a limited party of editors and managers, and enforcing professional standards and a commonality of work place practices, the organizational structure of Slashdot's editorial team fosters instead a pointed multiplicity of editorial styles and voices. Borrowing again from Boczkowski's framework on distributed construction (2000, 2001), I argue that Slashdot's collaborative news network embodies what sociologists of organizations have termed a heterarchical structure (Stark, 1996, forthcoming) that affords individual editors the capacity to develop their own unique, personal approaches to the editing of content. Such a model flattens the organizational hierarchies that typically operate to maintain conformity and consensus among workers, and distributes editorial authority for content to a community of users. Manifested in news production, such a structural model challenges conventional models that seek to streamline and standardize editorial relationships, permitting instead a diversity of interpretations that defines decision making.

What new forms of collective action emerge through the convergence of editorial and audience practices on the collaborative news network, and the implications of such new forms of online collectivity, is the subject of focus in chapter four. While social movements have often been conceived of as organized bodies of unified actors, physically and ideologically cohering for a clear and defined purpose, the forms of collective action that emerge on collaborative news networks are not organized by any single logic of structure, but by multiple ones that operate at times in support of Slashdot and at times in conflict or tension with it. And reliant upon the activity of an anonymous, dispersed web of participants, distanced by miles and often by time, Slashdot's collectivity is constituted by members whose presence remains largely virtual. Despite, and arguably in part because of such separations and internal divisions, however, manifestations of collectivity emerge on the collaborative news network that powerfully impact both online and real world environments. Such forms of collective actions reveal themselves in



individual users' practice of activist tactics that reflect and express shared values with other participants on Slashdot's network, in affecting the access of digital information beyond the network, through movements to break away from Slashdot's network to form a distinct, often contestory one, and through attempts by network participants to display and exhibit their improper usage and actions on the site.

This study focuses, then, on an examination of the social practices and processes surrounding the production, consumption and distribution of news on Slashdot, and the meanings that are generated through such activities. By recognizing the activity of Slashdot's editors and users as necessarily dynamic and symbiotic, such an examination complicates theoretical positionings of audiences and users as passive, uncritical readers and consumers of news, and of media producers as self-interested conduits of elite, capitalistic interests. In further acknowledging the diverse, often disordered interests and practices represented on Slashdot, the study also breaks away from characterizations of the news production as a process of organized routines and consensus, and challenges attempts to define an essential or definitive experience of "the audience" and online users. The destabilization of traditional lines of authority in online environments and the transformation of the roles of editors and audiences within collaborative news networks particularly, require that scholars turn their analyses to not merely a single site as generative of social meaning, but to multiple ones that often overlap, meld into one another, and defy distinct boundaries.

## NOTES

Bardoel, J. (1996). Beyond journalism: A profession between information society and civil society. European Journal of Communication, 11, (3), 283-302.

Boczowski, P. (2000). Distributed construction: Changing regimes of information creation in online newspapers. Paper presented at the Annual Meeting of the International Communication Association, Acapulco, Mexico, June.

Boczkowski, P. (2001). Affording flexibility: Transforming information practices in online newspapers. Doctoral dissertation, Cornell University, Ithaca, NY.

Boczkowski, P. (2002). Development of online newspapers: What research tells us and what we might want to know. Handbook of New Media. London: Sage Publications.

Cringley, R. (1999, October 7). Quantum dilemma: If the world banking system is compromised by quantum computing, why aren't we worried? PBS Online. Retrieved April 12, 2002, from <http://www.pbs.org/cringely/pulpit/pulpit19991007.html>

Deuze, M. (2001). Online journalism: Modeling the first generation of news media on the world wide web. First Monday, 6, (10). Retrieved April 12, 2002, from [http://www.firstmonday.org/issues/issue6\\_10/deuze/](http://www.firstmonday.org/issues/issue6_10/deuze/)

Flanagin, A. & Metzger, M. (2000). Perceptions of internet information credibility. Journalism and Mass Communication Quarterly, 77, (3), 515-550.

Garrison, B. (1998). Coping with new technologies in the news room. Convergence: The Journal of Research into New Media Technologies, 4, (4), 18-25.

Garrison, B. (2000). Diffusion of a new technology: On-line research in newspaper newsrooms. Convergence: The journal of research into new media technologies, 6, (1), 85-105.

Hall, J. (2001). Online journalism: A critical primer. London: Pluto Press.

Jankowski, N. & van Selm, M. (2000). Traditional news media online: An examination of added values. Communications, 25, (1), 85-101.

Johnson, T. & Kaye, B. (1998). Cruising is believing?: Comparing internet and traditional sources on media credibility measures. Journalism and Mass Communication Quarterly, 75, (1), 325-340.

Kenney, K., Gorelik, A. & Mwangi, S. (2000). Interactive features of online newspapers. First Monday, 5, (1). Retrieved April 12, 2002 from [http://firstmonday.org/issues/issue5\\_1/kenney/](http://firstmonday.org/issues/issue5_1/kenney/)

King, E. (1998). Redefining relationships: Interactivity between news producers and consumers. Convergence, 4, (4), 26-32.

Leonard, Andrew. (1999, October 8). "Open-source journalism," Salon.com. Retrieved April 12, 2002, from [http://www.salon.com/tech/log/1999/10/08/geek\\_journalism/index.html](http://www.salon.com/tech/log/1999/10/08/geek_journalism/index.html)

Martin, S. & Hansen, K. (1998). Newspapers of record in a digital age: From hot type to hot link. Westport, CT: Praeger.

Massey, B. & Levy, M. (1999). Interactivity, online journalism, and English-language web newspapers in Asia." Journalism and Mass Communication Quarterly, 76, (1), 138-151.

Moon, Jin. (1999, October 10). Open-source journalism online: Fact-checking or censorship? Freedom Forum Online. Retrieved April 12, 2002 from <http://www.freedomforum.org/templates/document.asp?documentID=7802>

Neuberger, C., Tonnemacher, J., Biebl, M. & Duck, A. (1998). Online – The future of newspapers? Germany's dailies on the world wide web. Journal of Computer Mediated Communication, 4, (1). Retrieved April 12, 2002, from <http://ascusc.org/jcmc/vol4/issue1/neuberger.html>

Newhagen, J. (1998). Hitting the agenda reset button: Matching Internet research with development. Convergence: The Journal of Research into New Media Technologies, 4, (4). 113-119.

Newhagen, J., Cordes, & Levy, M. (1995). Nightly@nbc.com: Audience scope and the perception of interactivity in viewer mail on the Internet. Journal of Communication, 45, (3), 164-175.

Newhagen, J. & Levy, M. (1998). The future of journalism in a distributed communication architecture. In D. Border & K. Harvey (Eds.), The electronic grapevine: Rumor, reputation and reporting in the new online environment, (pp. 9-21). Mahwah, NJ: Lawrence Erlbaum Associates.

OSDN Report. (2001, September). Profile of visitors to OSDN network: Slashdot.com. Boston: Audience Profiler.

Pavlik, J. (2001). Journalism and new media. New York: Columbia University Press.

Powell, W. (1990). Neither market nor hierarchy: Network forms of organization. Research in Organizational Behavior, 12, 295-336.

Preecs, B. (2000). Open source journalism: An alternate strategy for using the Internet to empower citizens and strengthen democracy. Retrieved April 12, 2002, from <http://www.makeyourownmedia.org/osj.htm>

Pride, R. (1998). Media critics and newsgroup-embedded newspapers: Making attentive citizens attentive. In M. Salvador & P. Sims (Eds), The public voice in a democracy at risk, (127-148). Westport, CT: Praeger.

Rafaeli, S. & LaRose, R. (1993). Electronic bulletin boards and "public goods" explanations of collaborative mass media. Communication Research, 20, (2), 277-297.

Schlesinger, P. (1978). Putting 'reality' together: BBC news. London: Methuen.

Schultz, T. (1999). Interactive options in online journalism: A content analysis of 100 U.S. newspapers. Journal of Computer Mediated Communication, 5, (1). Retrieved April 12, 2002, from <http://ascusc.org/jcmc/vol5/issue1/neuberger.html>

Schultz, T. (2000). Mass media and the concept of interactivity: An exploratory study of online forums and reader email. Media, Culture & Society, 22. 205-221.

Sieb, P. (2001). Going live: Getting the news right in a real-time, online world. New York: Rowman & Littlefield Publishers, Inc.

Singer, J. (1997). Still guarding the gate: The newspaper journalist's role in an on-line world. Convergence: The Journal of Research into New Media Technologies, 3, (1), 72-89.

Singer, J. (1998). Online journalists: Foundations for research into their changing roles. Journal of Computer Mediated Communication, 4, (1). Retrieved April 12, 2002, from <http://ascusc.org/jcmc/vol4/issue1/singer.html>

Slashdot.org. (1999, October 4). Jane's Intelligence Review needs your help with cyberterrorism. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=99/10/04/0836212&mode=thread>

Slashdot.org. (1999, October 7). Jane's Intelligence Review lauds Slashdot readers as cyberterrorism experts. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=99/10/07/120249>

Slashdot.org. (2002a, March 19). Larsen ice shelf collapses. Retrieved March, 19, 2002, from <http://slashdot.org/article.pl?sid=02/03/19/1245202&mode=thread&tid=134>

Slashdot.org. (2002b, March 19). First 802.11 wireless movie theater? Retrieved March, 19, 2002, from <http://slashdot.org/article.pl?sid=02/03/19/2232204&mode=thread&tid=95>

Stark, D. (1996). Recombinant property in East European capitalism. American Journal of Sociology, 101, 993-1027.

Stark, D. (forthcoming). Ambiguous assets for uncertain environments: Heterarchy in postsocialist firms. In P. DiMaggio, W. Powell, D. Stark, & D.E. Westney (Eds.), The 21<sup>st</sup> century firm. Princeton, NJ: Princeton University Press.

Sundar, S. (1998). Effect of source attribution on perception of online news stories. Journalism and Mass Communication Quarterly, 75, (1), 55-68.

Sundar, S. (1999). Exploring receivers' criteria for perception of print and online news. Journalism and Mass Communication Quarterly, 76, (2), 373-386.

Tewksbury, D. & Althaus, S. (2000). Differences in knowledge acquisition among readers of the paper and online versions of a national newspaper. Journalism and Mass Communication Quarterly, 77, (3), 457-479.

Tuchman, G. (1978). Making news: A study in the construction of reality. New York: The Free Press.

Figure 1. Screen shot of Slashdot, March 19, 2002



## ENDNOTES

---

<sup>1</sup> These numbers were self-reported by Slashdot editors in December 2001. In comparison, data from 2000-01 Jupiter Media Metrix, Inc. reports listed on *The San Francisco Chronicle's* website, [www.sfgate.com](http://www.sfgate.com), lists the site as attracting 1.2 million unique visitors per month. A Nielson/Net Ratings report from June 2001 lists *The Houston Chronicle's* web site at [www.houstonchronicle.com](http://www.houstonchronicle.com) as serving 1.2 million unique visitors per month. And Jupiter Media Metrix, Inc. report for Wired.com listed the site as attracting 1.3 million unique visitors during March 2001. " A handful of story blocks routinely appear on the site that were written by the site's editors and are dedicated to independently standing articles, rather than news story summaries that link to sites beyond Slashdot. These articles would include book or movie reviews, or commentary written by Jon Katz, a journalist and regular contributor to Slashdot. While several of these types of articles may appear on the site over the course of a week, the vast majority of the content for the site remains authored by its users.

Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org.  
Chapter 2: Active Users and the Collaborative Construction of News

"A friend of mine from high school found Slashdot and showed it to me... and it became a daily thing pretty fast. It's been my homepage ever since... My visits there have stayed pretty constant. Like I can't remember the last time I wasn't visiting Slashdot almost every day... Now I'm the one telling other friends about it." (personal communication, March 20, 2002) Nicholas<sup>1</sup>, a 19-year-old computer science undergraduate and Slashdot user, still readily recalls how he discovered the web site more than three years ago from a friend interested in programming. Testifying to having quickly developed a pattern of loyal usage of the site, Nicholas' description of his history on Slashdot echoes that of several other users interviewed who have consistently dedicated routine visits to it since first discovering the site – including Bryant<sup>2</sup>, a 21-year-old online help desk technician in Pittsfield, Kansas: "Ever since [I started visiting it], Slashdot has been my primary source for information online... From time to time I will open my browser for a specific purpose and shortly afterwards I will have forgotten what it was that I was initially going to do - thanks to Slashdot's frequently updated headlines... And I have never stopped reading it all together. I *do* like to visit – and I don't like not to visit. If I'm at my parents' house [for a weekend] and I don't have a connection online and can't check the site, I wonder what's going on." (personal communication, March 5, 2002) Stephen<sup>3</sup>, a 28-year-old graduate student in physics at a university in New York state, who said he used the site as "my daily newspaper," added, "I think Slashdot is the best news site in the world and is the greatest thing that ever happened to media. It's a revolutionary thing and I make a prediction that Slashdot will be the future of media." (personal communication, March 7, 2002) More curious, perhaps, was the characterization of his visits to the site by Adam<sup>4</sup>, a 21-year-old undergraduate student majoring in television and economics at a Boston-area university: "I visit Slashdot many times a day, and

have been for several years - about four times at this point... It's one of the few sites I constantly visit... [But] I can't tell you how many times I've said to myself, 'I'm not going to go to this site anymore!' and like a day later, I'm back on Slashdot. I see some poorly written editorial or the story isn't interesting ... and the comments are really immature. And I think, 'ah, this is going no where. Why am I wasting my time?' But then I go back." (personal communication, March 13, 2002)

Such testimonies of dedicated readership to Slashdot are not uncommon to hear among many users of the site – from its most endorsing to its most critical. Although less than five years old and edited by a just a five-member editorial team, Slashdot has garnered a commitment from its audience that some more established news publishers might find enviable. Arguably as unlikely is the notion that the site would cultivate such loyal reliance for news from audiences despite its minimization of editorial and reporting staff, and its heavy dependence on users themselves as responsible for generating the majority of site content as both sources and commentators on news. While conventional routines of professional news productions might suggest that such an integration of users as participants in news construction and shaping would diminish audience members' confidence in news, a consideration of the emergent user practices generated from their new roles as content producers, and users' own characterization of Slashdot, reveal that it is in fact precisely through their incorporation as sources and analysts of news that a commitment to the site is fostered.

Borrowing from the analytical framework developed by Pablo Boczkowski on the inscription of users as content producers in online newspapers (2000, 2001), then, this chapter explores the emergence of a new body of audience roles and practices in Slashdot's collaborative news network, investigating the means by which the site constructs users as the primary producers of news. Utilizing online properties of interactivity, several prominent technological features of the site enable users to formulate practices as both news sources and



analysts, responsibilities conventionally reserved in news production by professional reporters and credentialed experts. Such tools include the submissions bin which allows users to submit story suggestions to editors, discussion forums that allow users to expand and reshape news stories through the addition of comment posts, and the moderation feature that allows users to assess and re-organize other users' comments. The construction of users as central shapers and producers of news, then, on Slashdot's collaborative news network significantly impacts users' practices for news reading. Highlighting the expertise of users and the value of their participation, news reading shifts from an act centered on the reports and analyses of news professionals and designated experts, to one often equally focused on the assessment and opinions of fellow users on the network.

Extending a study on the technological inscription of users, however, this chapter will also explore the parallel reconstruction of users' relationship to the site of news when the practices of users as content producers are enabled. For while the implementation of such technological features and the extension of the capacity to construct news content to a broad body of users yields several pragmatic advantages for news production – including a maximization of sources for news coverage, and an efficiency in news verification – as important is that users' emergent practices as content producers enable the cultivation of a more personalized relationship to news. News in a collaborative news network is no longer primarily conceived as information packaged by professionals, written with the voice of distance and detachment, and focused on the activities and interpretations of credentialed officials and experts, but is produced instead with an emphasis on users' individual standpoints, and often focused on their own experiences and forms of knowledge. Reflecting the personalities, values, tastes, and interests of its audience, news exchange on Slashdot's collaborative news network cultivates user relationships to the site that are characterized as much by pointed loyalties as by other expressions of intensity.

### *Social Constructivism, Users, and News Production*

Theories of social constructivism have positioned technologies not merely as objects whose functions naturally emerge from their form, but as artifacts embedded within systems of cultural values, interests, and interpretations, and whose invention and development are critically shaped by such social forces (Bijker, Hughes & Pinch, 1987; Bijker, 1995; Bijker & Law, 1992; Mackenzie & Wajcman, 1985). Among the concepts such theories have introduced is that of inscription, a process where by inventors manifest their vision of the world and the role of individual users within it, into the objects they design. (Akrich, 1992; Carlson, 1992; Latour, 1992). According to Akrich, “Designers thus define actors with specific tastes, competences, motives, aspirations, political prejudices, and the rest, and they assume that morality, technology, science, and economy will evolve in particular ways. A large part of the work of innovators is that of ‘inscribing’ this vision of (or prediction about) the world in the technical content of the new object.” (p. 208) Emphasizing how the materiality of inventions, even in digital form, pre-supposes users’ interactions with it, Latour writes, “The fascinating thing in text as well as in an artifact is that they have to thoroughly organize the relation between what is inscribed in them and what can/could/should be pre-inscribed in the users... A text, for instance, is clearly circumscribed – the dust cover, the title page, the hard back – but so is a computer – the plugs, the screen, the disk drive, the user’s input. What is nicely called ‘interface’ allows any setup to be connected to another through so many carefully designed entry points.” (pp. 237-39)

The design and features of Slashdot’s digital interface play a crucial role in shaping users’ interactions with and on the site, and in inscribing them as the central producers of content for it. By offering users a number of “entry points” from which they may choose to add or mold content, the site’s features enable, encourage and expose their participation in it as central

content producers. Site features including the story submissions bin, discussion forums, comment moderation and comment filtration afford users with the capacity to not merely control their own experience and engagement with the site, but to shape and influence those of other users as well. Building and sustaining a user-centered system that empowers audience members to construct and customize their own interaction with the site is among the defining objectives of Slashdot's maintainers, according to Slashdot editor and code writer, Cliff Wood:

Most news sites only pay lip service to "user interaction." That's not true of Slashdot, it's the opposite end of the spectrum. If you take the users away from MSNBC you still have the News. If you take the users from Slashdot, you have a whole lot of nothing... if there's any set of "values" that we've tried to build into the code, it's that flexibility, that ability to change as the user base changes. Slashdot adjusts to the user. We don't try to dictate content to them, we let them pick and choose... There are very few [mainstream news sites] that will allow you to customize how you view that content to your own tastes and be interactive enough to allow a community to rally around it without any help from said sites maintainers. (personal communication, December 13, 2001)

Interestingly, Woods' assessment of the version of interactivity adopted on mainstream news sites echoes criticism voiced by some scholars of online journalism (King, 1998; Massey & Levy, 1999) who have argued that most online news sites offer only a limited version of interactivity. King observes for instance that while most news sites have only interpreted interactivity as "the process of empowering users with additional control over the sequence in

which information is presented to them,” (p. 26) and have permitted users greater navigational control over site content, for instance, the term could also be used “to describe an increase in the interaction news consumers can have with news producers, a definition relating to increased feedback.” Interactivity as envisioned by Slashdot’s editors, however, entails enabling users to not only tailor the content they are exposed to, but also facilitates enough inter-communication between participants as to allow them to debate, discuss and assign significance to specific issues independent from editorial intervention. Woods’ own connection between interactivity and a dependence on users to keep the site from having “a whole lot of nothing” further reveals that for Slashdot’s editors, interactivity necessarily includes enabling users to participate in the generation, and not merely navigation, of its news content.

#### *Users as Story Sources: The Submissions Bin*

One of the primary features that users are provided to help shape the site’s content is the story submissions bin. (See Figure 1) With a link prominently placed on Slashdot’s index page, users are enabled and encouraged to access the bin and add their own suggestions for stories they think should appear on the site. User submissions typically contain a link to a web-based news article covering the issue, links to other potentially relevant web sites, and three or four sentences, written in the user’s voice and often offering some personal commentary, to summarize and contextualize the story. Users may also, however, generate stories from their own personal encounters with, or questions about, technology-related issues. Such posts might include an account of the local impact of new public policy concerning technology, or questions about what programming language is optimal for building a particular piece of software.

Indeed, a quick skimming of the story blocks’ headlines and news summaries would quickly reveal a distinctive quality to news construction and composition on Slashdot. Opening

with a credit to the user who authored and submitted the summary's text, the news summaries themselves dispense with the familiar, distanced language of the mainstream news, and are composed instead in a casual, often conversational, style. Unrestrained injections of sarcasm, wit, cynicism, criticism or enthusiasm pepper the site's news summaries, highlighting the personal voice and perspective of the writer. Embedded within the text as well are hyper links to point readers to relevant online documents and sources that range in nature from the official to the amateur and obscure.

The summary for the "First 802.11 Wireless Movie Theater?" story (Slashdot, 2002a, March 19), posted to Slashdot in late March, and submitted by a reader in Austin, TX, for instance, effused:

Imagine being able to IRC [Instant Relay Chat] someone to pass the popcorn!  
 The [Austin Wireless Group](#) has helped ~~establish~~ what may well be the country's first [Wireless Enabled Theatre](#). The [Alamo Draft House](#) movie theater in Austin, Texas now has 802.11b wireless broadband Internet access that covers all screens in their complex... So, you can park your laptop, order a burger/beer, then email in a movie review all w/o disturbing your fellow patrons. Cool! :)

Generously scattering exclamation points and even a smiley face throughout his text, the user delivered a news description infused with personal sentiment and unabashed excitement. (See Figure 2) Notable as well is the incorporation of links to web pages for the Austin Wireless Group, an informal network of programmers and technicians experimenting with wireless protocols in Texas, one for an independent web log run by a freelance technology reporter for news on wireless networking, and to the home page for the Alamo Draft House itself into the summary's text. While articles from the mainstream media are often integrated as story posts to

the site, as well, it is an unencumbered integration of unofficial and obscure sources that characterizes the construction of a daily news agenda on Slashdot.

Users, however, often link to more official and traditional news sources in the news blocks they compose. The summary for the story headlined "Larsen Ice Shelf Collapses" (2002b, March 20), for instance, opened with a hyperlink to a BBC article covering the issue. Written and submitted by a site user who described his/herself as a Greenpeace member, the text for the summary read:

The BBC reports that the Larsen B Ice Shelf in Antarctica, a 200m thick ice floe covering 3,250 sq. km., has disintegrated. This is terrible news. The widely respected British Antarctic Survey are quoted as saying 'We knew what was left would collapse eventually, but the speed of it is staggering... [It is hard] to believe that 500 billion tons of ice sheet has disintegrated in less than a month.' As a Greenpeace member who's been following the debate for over a decade, it's hard not to feel aggrieved at those with their own agenda who have pushed the theory that global climate change isn't happening.

Woven within the summary were links to the homepage of the British Antarctic Survey (BAS), an institute of Britain's Natural Environment Research Council; satellite images of the collapsed ice shelf and a press release on the issue from the BAS; a Greenpeace webpage spotlighting several key sites most threatened by global warming; and a February 25, 2002 BBC article that focused on scientists who "Denounce(d) Global Warming as a 'Lie.'" (See Figure 3) For the story summary's submitter, it is from a blend of published reports from the news media, scientific researchers, and environmental activists interlaced with his or her own personal lament, that news is composed.

Between 400 to 500 user-generated suggestions per day are channeled to the editors via the submissions bin, from which the editors glean the majority of the 15-20 stories that will get posted to the daily main page (See Figure 4). Describing the process, Malda says:

Editing basically means reloading a web page that lists reader submissions, and then reading, and accepting or rejecting 500 or so submissions a day. This task is shared between one to four people on any given day ... Traditional editors go through a process where a story is pitched and a story is assigned and then printed... We sort of just take the pitches and print them or not. We do post some content the old fashioned way, [by assigning original articles], but that's probably less than 10% of the total content we post. (personal communication, December, 13, 2001)

Revealingly, despite never having met the vast majority of the site's users and having interacted with them only online, for Malda, users' electronic filtration of story "pitches" to Slashdot's small team of editors via an online submissions bin functions in a similar means as reporters' filtration and pitching of stories -- in a non-anonymous, typically face-to-face interaction -- to traditional editors. Such an evocation of users as reporters and sources for stories demonstrates not only Slashdot's editors willingness to unravel the traditional isolation of editors from users, but demonstrates as well editors' recognition of users as valuable and important agents in the news generation process.

Duly, then, user-generated stories posted to Slashdot credit the author of the post, just as articles generated by individual reporters credit them. Critical as well is that user-generated story submissions, which are presented in italicized text and inside quotation marks, are visibly distinguished from any text written or added by the editors of the site, which appear in standard,

non-italicized text. Such a design detail not only grants recognition to its contributor, but readily cues other site readers which stories originated from, and to what extent the site's overall content was shaped by, the contributions of fellow readers.

### *Segregating Audiences and News Sourcing*

By contrast, in traditional models of news delivery, audiences play a significantly more passive role, leaving professional editors to select, present and package news (Boczkowski, 2000). As Boczkowski observes, "print newspaper readers are scripted as information consumers: there are no blank pages inviting readers' comments, no major explicit encouragement for them to become authors, and very little space where that actually happens." (p. 13) Where newspaper space is dedicated to reader feedback, as in the Op-Ed or the Letters to the Editor sections, it is typically confined to limited number of pages segregated from the news stories reporters submit. The same could also be argued for most radio and television news casts, where audiences are generally scripted as passive listeners or viewers, and are rarely provided the capacity to shape or impact the news broadcast.

Indeed, the separation of users from professional news producers has been a defining aspect of contemporary news organizational culture that scholars of journalism have both studied and critiqued. Pointing to the limited means by which audiences may interact with journalists, including letters to the editor or telephone calls, Philip Schlesinger argues in his ethnography of news production at the BBC that its organizational structure "has no adequate point of contact with the audience... and that there is, therefore, no sense in which one can talk of a communication taking place which is truly alive to the needs of the news audience." (1978, p. 106) Herbert Gans similarly argued that professional journalists "had little knowledge of their actual audience, and rejected feedback from it" that came in the form of letters or phone calls,



"[believing that it was not] capable of determining what news it needs." (1979, p. 230) Often perceiving audiences who attempted to contact them as "cranks" or "nuts" (Gans, p. 231) according to Gans, or "unstable," "hysterical" and "sick" (Schlesinger, p. 108) according to Schlesinger, journalists justify their isolation from audiences as being in the interest of professional integrity.

Such a perception of audiences not surprisingly then, shapes new workers' use and construction of sources, where the separation between news production routines and ordinary readers is critically maintained. Scholars have observed that news professionals seek out and have relied nearly exclusively upon high-status, authoritative and "legitimate" officials, institutions or organizations as sources of news. (Gans, 1979; Roshco, 1975; Tuchman, 1978) Such sources traditionally include wires services, professionals, experts and their own bureaus, creating a process, which as Tuchman writes, "allows news to happen in some places but not others." (p. 22) Gans has similarly observed that sources are judged legitimate according to whether they have been used before, if they are 'productive,' 'reliable,' 'trustworthy,' 'authoritative,' and 'articulate,' (pp. 128-132) further discouraging and justifying the exclusion of ordinary audience members as sources of news. Ironically, according to Roshco, the practice of relying upon official sources to the exclusion of audiences operates with the intention of maximizing news coverage:

On every beat, the most highly valued sources of news are individuals having authoritative personal knowledge concerning significant events that have occurred, or preferably, in the interest of timeliness, are about to occur. Likeliest to possess such information are occupants of high ranking positions in the organization, or the institutional area, that the reporter is covering. (p. 74)

Frustrated by what they read as a persistent and potentially growing alienation of audiences from news professionals and journalism, some scholars and practitioners of news have called for the adoption of professional practices oriented to a more “public journalism.” (Charity, 1995; Merritt, 1998; Rosen, 1992) Such practices would facilitate increased interaction between professional journalists and audiences, advocating that news workers encourage and welcome feedback from audiences through initiating town hall meetings, establishing boards with community members, conducting opinion polls, and shifting from a “journalism of information” to a “journalism of conversation.” (Glasser & Craft, 1998, p. 206) Such an integration of audience feedback into professional news production processes would bring recognition to the knowledge of community members and the value of their experiences, transforming the press into an “agency not only *of* but also *for* communication.” (p. 207)

While the potentials for greater interactivity between audiences and news professionals working in online journalism has generated a good deal of hope among advocates for a more public journalism, these remain for the greater part unrealized (Schultz, 1999), leaving online audiences still largely excluded from acting as sources of news. Although online news sites make possible the integration of interactive features – including online discussion forums, the provision of content producers’ email addresses, surveys, and polls – to facilitate two-way communication between news professionals and their audiences, scholars of online news have critiqued mainstream news sites for actually offering few or only minimally interactive features. (Deuze, 2001; Kenney, Gorelik, & Mwangi, 2000; King, 1998; Massey & Levy, 1999; Newhagen, Cordes, & Levy, 1995; Schultz, 1999, 2000) Such conservative interpretations of interactivity by mainstream news sites preclude or limit opportunities for audiences to interact with the reporters and workers behind the production of news, let alone serve as its as sources for news.

Tanjev Schultz’s survey of the use and reception of email exchange between from readers by 19 journalists at *The New York Times*, for instance, demonstrates that while at least

one reporter valued reader email for its potential to serve as a story source, email was largely used “reactively” by reporters, to respond to a question posed by a reader, rather than generally regarded as a source of valuable information. Such a finding partly lead him to conclude that “schedules in the newsroom do not consider discussion with the audience as an essential part of the job.” (2000, p. 212) And while Boczkowski’s study of New Jersey Online’s Community Connect project (2000, 2001) found the integration of non-profit organizations’ self-authored web pages into the site, such content still remained segregated from the site’s news content, leaving it unclear how and under what conditions audiences might serve as story sources or news commentators for journalists.

### *Integrating Users as News Sources*

Slashdot’s integration and reliance on users as sources of news, then, breaks from the segregation of news makers from audiences that largely remains entrenched in traditional news production, and allows the formation of new audience practices centered on the direct generation of news. Rather than operating on conceptions of audiences as dependent on editorial authorities for news, or privileging judgement from “official” sources over those of ordinary users, Slashdot’s collaborative news network instead presumes its audience as a knowledgeable and informed one, possessing its own pockets of expertise, and capable of both filtering and recognizing news.

For readers of the site, one of the primary advantages that is perceived through broadening the conventional pool of sources beyond the realm of the official, familiar and institutionalized is an expansion and amplification of news coverage. News’ selection and reporting is no longer limited only to a select pool of credentialed observers, but becomes the

domain of a vast body of users, whose broad dispersion expands opportunities for news gathering. According to Bryant:

It's a great well of newsworthy information. Having many individuals who read so many different sites really explodes the opportunity for gathering news worthy information. It truly reduces, on a great level of magnitude, the need to search and rummage through all of the countless web sites to pick out the diamonds in the rough." (personal communication, March 5, 2002)

Edward<sup>y</sup>, a 24-year-old computer science graduate student similarly emphasized the value of allowing fellow site readers to act as sources of news for the site, rather than relying exclusively on more traditional sources:

The level that I find really amazing about it [is] there's all these people that find really dorky stuff interesting, that help me learn a lot about what's going on in the world. Whether it's stuff about cloning or about [computer] chips or about CD players. I don't care. Whatever the case, it keeps me up to date with scientific or technological things that are interesting... If their only source was the AP news wire, who would care? You could still say there's this new model for news delivery, where you could still have people talking about AP wire and interact with other people who read the article, but it wouldn't be nearly as interesting.

(personal communication, November 28, 2001)

Other readers point to the speed and efficiency of news circulation that having an expanded pool of news sources enables. According to Mark<sup>vi</sup>, a 24-year-old technician in Raleigh, North Carolina who has been reading Slashdot since 1998:

The community scouring the web is the primary means of news gathering on Slashdot... [And] so many stories just move through the site, it's easy to stay behind a day... When something happens, it'll usually get posted pretty fast. It's impressive that so many stories come up and move out of that site. (personal communication, November 18, 2001)

Patrick<sup>vii</sup>, a 24-year-old computer programmer in New York City added that he would often notice technology related news circulated on Slashdot before it appeared in most other news outlets:

I would go to Slashdot and read articles and people would mention the same news to me two days later... It was definitely the best site to find about as soon as possible and it's still pretty good. There's very few times that people mention something I that I don't know – especially on Linux. (personal communication, March 10, 2002)

Significantly, users of the site also expressed a degree of pride in the practice of story submission, and in seeing stories they filtered to Slashdot's submissions bin appear on the site. According to Mark, "It's kind of a bragging point if you can get your story submission to be on the front page – it'd be pretty cool to be able to do that. To know that out of hundreds of posts, yours was the one that was picked." (personal communication, November 18, 2001) Just as

significant to users as being able to participate in the news production process through a process of story submission, however, is that it affords them an opportunity for personal expression and self representation. It is partially through the facilitation of such expression that audiences' conventional relationship to news as merely a source of newsworthy information is transformed. According to Bryant, "I've submitted three stories and one of them did get posted and that was pretty cool. In a sense it's like being represented even though it's nothing more than your alias... It's kind of like being on stage for 5 minutes because so many people read the site." (personal communication, March 5, 2002) For many users, then, Slashdot becomes valuable not only in its provision of news, but in its creation of a space to practice and reveal the personally relevant dimensions to news as through participation as sources.

#### *Users as News Critics: Discussion Forums and Moderation*

Discussion forums that accompany every story posted to Slashdot are another feature of the site where users are able to generate their own content. Through the forums, users can add opinions related to the topic of discussion, provide additional information not supplied in the story, react to other users' comments, post related web links, or share insight gained from either personal or professional experiences. Such activity allows users to reshape, amend or dispute the scope of the original article posted and the discussion that develops around it. Providing such a central platform for the voices of users, discussion forums for stories posted to Slashdot's main page typically generate hundreds of comments from users within hours of a story's posting.<sup>viii</sup> (See Figure 5)

Critical to the function of the forums, however, is not merely that it provides a space for users to voice their interpretations and commentary on the news, but that it allows users to organize and rate comments via the site's moderation feature. Through it, a temporarily selected

body of users is able to assign merit on a point-scaled basis to comments that they consider particularly “insightful,” “interesting” or “funny,” and to demerit those that they find “off topic -1” or “troll-ish.” An average of 400 users are designated as moderators each day, selected automatically by the underlying code for the site. Each moderator is allotted five points with which to add to or detract from the score of a comment, on a range of –1 to 5, with the higher scoring comments considered to have a higher “signal” value, while lower scoring comments are deemed to be part of the “noise.” (See Figure 6)

Although entering a discussion forum initially displays all comments at a default level of –1, the moderation feature affords users the option of implementing a filtration system to render visible only a select pool of comments. A scroll down menu at the top of each discussion forum allows users to choose a preferred score level at which to read a forum, and effect its change by clicking the adjacent “Change” button. Other users are thereby permitted to filter comments in a discussion forum through an aggregation of moderators’ scoring, reading posts according to an their preferred level of filtration, whether it be all the comments (at the lowest level of –1) or only a selection of them that earned a specified number of points. Reading forums at higher filtration levels allows users to alter the default arrangement of forum, masking comments that moderating users deemed less worthy of reading. Through the filtration system the moderation feature allows, readers are provided a means of managing the flood of comments in any particular discussion, and can organize forums to minimize the visibility of irrelevant comments that are often characteristic of online news discussion boards (Schultz, 1999).

Filtering the discussion forum for the “Larsen Ice Shelf Collapses” story (2002a, March 19) at level 4, for instance, pared over 1200 comments down to 38. Among them was a post from a reader who supplied links to two graphs – the first from the U.S. Department of Energy’s Oak Ridge National Laboratory that charted the rise of carbon dioxide level, and a second from the National Oceanic & Atmospheric Administration that charted fluctuations in land and water

temperatures. Another reader posted links to two book reviews – one by the Union of Concerned Scientists, the other by the World Resources Institute – on The Skeptical Environmentalist, a controversial book by a Danish political scientist, released in 2001, that accused scientists and environmental organizations of exaggerating the world’s environmental problems.

Discussion forums, however, are not only a space for other users to amend and extend the coverage presented in a story post, but to critique and debate the issues it raises as well. Contesting the environmentalist perspective voiced in the original post of the Larsen Ice Shelf story, one user commented:

The Earth's temperature has always fluctuated – massively. Only in the past thousand years or so has the temperature leveled out at a rather warm plateau. But if you look at a statistical chart of the earth's history over the past few million years you'll see wide temperature swings that have absolutely nothing at all to do with human actions or inaction.

Two other users cited the 1995 controversy over the Brent Spar oil storage platform in the North Sea, and accused Greenpeace for operating like a “PR [public relations] company” and of asserting a “show business environmentalism over rational thought” for having circulated false data to keep the decommissioned platform from being sunk<sup>x</sup>. “Greenpeace's only motivation is the continuation of itself,” one user rebuked. Continuing, the user added:

A few years ago they created a huge amount of havoc over plans to decommission an oil platform. They cited the huge environmental damage caused by the radioactivity, without actually considering that this was natural



radioactivity. The net result of the media misinformation was that the platform had to be dismantled at great cost, and actually caused considerably more pollution, and took up a great deal of landfill space when otherwise it would have served as a habitat for lots of rare marine life.

Other readers took issue with comments posted that asserted global warming as a natural phenomena, rather than a problem that humankind would have to conscientiously work against to deter. Arguing from such a position, one user wrote:

The Earth and life as a whole may have weathered huge climactic shifts before - look at the end of the Ice Age. But such shifts tend to cause a *lot* of extinctions, and it is undeniable that the effects of human industry, territorial expansion, etc. have already caused many extinctions/ endangered species/ etc. So this climactic change is coming at a point when the global ecosystem is already stressed.

Emphasizing global warming as a legitimate problem for researchers and the public to address, whether accelerated by contemporary human action or not, the user added:

Many people, particularly in third world nations, live on the coastline, in areas that would (and will) be inundated if and when a higher global temperature causes ocean levels to rise. This is a serious threat to the lives and livelihoods of many people... Whether or not humans caused global warming, it exists, as the collapse of the Larsen Ice Shelf indicates, and it *is* a threat.

Asserting a similar critique of the cynicism expressed towards environmentalist politics, another user wrote:

It's very true that over the entire period that there have been human civilizations, global climate has been extremely stable...but over the long term, ...catastrophic changes in global climate appears to have been really common... The danger is that we're doing the exact things that may push our wonderfully stable, basically benign, late Holocene climate out of its comfortable groove and back into wild swings like the earth has seen before in the past 300,000 years that we know something about.

Discussion forums become a space, then, where users practice a collective reshaping and refining of an original news story, modifying its coverage, contesting reported details, or introducing additional relevant information. Equally significant is that discussion forums provide a space for users to react to one another, refining, supporting or contesting previously posted observations by fellow users. User practices, therefore, continually shape and reshape discussion forums in three methods: through adding their own comments to the discussions, through rating comments based on their merit, and through applying the filtration feature as furnished through moderators' activity.

According to Slashdot editor Timothy Lord, such an inscription of users' roles allows them to accomplish a comparable job of news verification and legitimization as would otherwise be performed by site editors: "What Slashdot does is offloads a mechanism of quality control in an interesting and distributed way. Rather than a small team of editors deciding what you see – the vast majority of comments are touched only by fellow readers." (personal communication, December 9, 2001) Malda stresses that user practices in the discussion forum also expedite a

process of news verification: “What’s unique is that everything we post has thousands of other people reading and hundreds of them talking back. If a story is full of crap, it only takes a minute or two of reading the comments to see through it. It’s sort of like fact checking in real time.” (personal communication, December 6, 2001) He adds that users’ critique and verification practices within the forums shape not only the content production practices by other users, but that of editors as well: “[Users] keep the whole thing rooted in reality, making sure that nothing is taken to seriously. [They] call the bluff when it needs calling, both on us, and on themselves.” Much like Slashdot’s submissions bin, then, the site’s forums similarly presupposes users as valuable contributors with a diverse range of expertise that enables them to critique and validate news, the comments and practices other users, as well as those of editors themselves.

### *Segregating Audiences and News Analysis*

Slashdot’s presupposition of users as qualified commentators of news expands professional journalism’s conventional definition and construction of who news analysts are and how they might function. Describing such actors as “news shapers,” Lawrence Soley (1992) writes that news networks usually reserve the responsibility of detached and objective news analysis on “political scientists, experts or scholars” (p. 2). Audiences figure in only to justify the presence and use of experts as interpreters of news events “too complex for the average citizen to understand, which is why experts are called upon to explain them.” (p. 26)

While discussion forums for online news sites of mainstream news publications might provide users a space of greater interactivity with news, opening up an opportunity to involve users in a practice of critiquing, analyzing and commenting on news content, scholars of news have critiqued forums as having only limited adoption rates among news outlets (Schultz, 1999; Massey & Levy, 1999), or being only “partially successful” in sustaining the interaction of a wide

and diverse audience. (Light & Rogers, 1999). In a 1999 study of 100 online U.S. newspapers, for instance, Tanjev Schultz found that only 33 percent offered discussion forums, leading him to conclude that while it “would not be fair to say that newspapers have totally ignored the Internet’s conversational potential,” online newspapers have “revealed generally few and token interactive options.” Light and Rogers’ study of eight separate political news forums that were adopted by the British newspaper, The Guardian, during the 1997 British general election, similarly found that “the art of conversation” still eludes most online news forums. Attracting posts from only a small percentage of the forum’s visitors (posters were an estimated 400 out of the site’s total of 70,000 visitors), who themselves voiced mixed reviews of the purpose of the forums, the paper canceled seven of the eight forums immediately following the elections. According to Light and Rogers, for The Guardian, “providing news reading as the core activity is considered to be a more effective way of bringing people back to the site.” Although the potentials for user activity in news forums might allow a broadening of the practice of news analysis and commentary to include actors other than simply officials and experts, then, The Guardian’s experimentation with forums seemed to reify rather than minimize the conventional exclusion of users as news commentators.

### *Integrating Audiences and News Analysis*

That users are able to act as analysts within and contribute to the organization of the forum discussions endows the practices of forum participation with a unique sense of significance for them. Rather than representing a merely functional act of pragmatic value and consequence, forum interaction reveals itself to be a highly personalized activity that’s valued and often relished by users. Adam for instance, was able to recall the first time he had been granted moderator status on the site:

I was like, 'Oh, cool! I'm a moderator, look at all these options I have!'... Usually you just read and go back and may be post – but now you can change stuff! You definitely feel like 'I'm doing right in the world!' because you're finding all the insightful comments and weeding out all the stupid ones. (personal communication, March 13, 2002)

Afforded the capacity to exercise personal judgment and provided the space to give it visible, and at least virtual, form, the practice of contributing to forums for Bryant similarly revealed itself to be fostered out of a sense of personal duty:

Sometimes I get a sense of wanting to give back and that was my way of doing it. I don't feel necessarily obligated... [I posted a comment to a story on] Windows XP and whether or not it was going to be available and which version of it would be. I don't necessarily really care about that, but I felt like somebody else probably would [care about it]. And I figured that I get a lot out of the site from a lot of other people. It was more to give back to – just because I get a lot out of it. (personal communication, March 5, 2002)

While Slashdot's heightened reliance on users as commentators of news might, by the standards of professional journalists, render the content on Slashdot subject to greater skepticism, Slashdot's own users often say that it is precisely the incorporation of a broad body of users as potential critics of news that fosters a greater sense of trust in the site. Sam<sup>x</sup>, a 29-year old graduate student in instructional technology who has been reading Slashdot for over

two years, for instance, says that it is in part because the news verification process is extended beyond a confined body of editors that his confidence in the site is cultivated:

I do trust the site. And then having an open process, I trust that to a somewhat larger degree, or certainly at least as much as I do the major media conglomerates. After getting these thousands and thousands of posts, I think the truth is going to fall out, kind of. Or at least you'll see something interesting. You'll see a diverse body of perspectives that will help to develop something like a reasonable opinion. (personal communication, November 17, 2001)

Daniel<sup>xi</sup>, a 25-year-old graduate student in engineering who's been reading Slashdot for two years, similarly attributed this degree of trust in the site's news content to the level of user interactivity:

I think it's very credible. The fact that anything that's posted there is open to challenge by a large community of savvy and aware readers makes me trust uncontested reports more than I would in the mainstream media... [On Slashdot] you'll see that there's 100 different people disagreeing with an article – [whereas] the mainstream media will have retractions back on page 17b. Because every single thing can be peer reviewed, this renders a sort of trust. (personal communication, March 9, 2002)

It is through a distribution of the function of news analysis among a wide body of users, rather than through a privileging of the interpretations of professional news makers and experts, that

Slashdot fosters confidence and trust among users in the news and information presented on the site.

### *Reading News through Discussion*

Further, users' navigation practices on Slashdot reveal a significant shift in the perception news reports and articles as being the primary document of news, to a perception of discussion forums as serving as a key site, and in some instances, serving as *the* most important site from which to read the news. Users like Adam, for instance, stated that accessing the newsworthy is not only accomplished by simply following the links provided on Slashdot to online news article, but in reading the discussions around a particular news post:

The news is in the content. It's not in the front page of Slashdot. If you just went to Slashdot, it would be a linking site. They don't add anything to what's already there, [but] for news, you think of adding more detail... The added detail – and my definition of news – is found in the comments. And that's where they add important parts that you would expect to find in a real news article. (personal communication, March 13, 2002)

Mark was another reader who described that while he may not always follow a hyperlink leading to another news article as a story's source, he almost always reads users comments on the story in the forums:

A lot of times, if you go through the forums before you go through the link, you'll pick up on the gist of the story because the forum is used to analyze the article. If

people pan an article in their comments then I may not even read it... And you can get a lot more data in the forum anyway because things are hashed out there. (personal communication, November 18, 2001)

Nicholas similarly described a preference for using the discussion forums over reading a sourced news article to orient himself on a particular news item:

If I can stay within the site, I'll stay within the site. Like if I feel like the comments and the write up do a good enough job of describing it then I'll just read those and ignore the links. If the story is really interesting, then yeah, I'll follow the link. But the first source is to get news from the site directly. (personal communication, March 20, 2002)

Readers then justify a practice of using the forums to unpack a news summary before or rather than reading the news article written on the same story, saying that the crucial elements of the story – enough to get the “gist” of the story – will typically be cited in the forum itself. Users further point to a reliance on forums for adding greater value to the news reading process, offering fellow users’ opinions on whether an originally sourced article was well-written or not, and presenting new information left un-mentioned in the original news article. Whether the assessment by some users of discussion forums as functioning as well as, or better than an original news is supported or not, however, it remains that many users still perceive forums to function in such a manner. Such testimony to what readers interpret as the primary document for reporting signals both a shift in what that document is and how it should function. Within Slashdot's collaborative news network, users recognize fellow users to be not only qualified commentators on news, but ones who are able to supply an added layer of value to news by



situating it within the context of their membership to Slashdot's community. The practice of "staying within Slashdot's site" for the accessing of news, then, becomes not only a demonstration of confidence in fellow users' ability to interpret and filter independent from professional commentators, experts and journalists, but acts as recognition of fellow users' expertise and an expression of the valuing of such expertise comments as much as and at times above those of professional reporters and commentators.

The strength in the practice of news exchange and distribution on Slashdot's collaborative news network lies not merely in its ultimate aggregation of stories and users' expertise, but in its enabling of a collective process of news construction with users acting as both sources and commentators of news. Such a process reinforces a sense of community mutually defined by a common body of interests and practices. Despite never having met – for the most part – other users and editors of the site in a face to face encounter before, users have described Slashdot as a creating a familiar, intimate space for news exchange. For many readers, it's precisely because such qualities are rare in news sites that Slashdot is particularly valued. For Bryant, for instance, "[Most] other [mainstream] technology based sites... may have really good information, [but] their site isn't as personal and not as homey as Slashdot's is. [Slashdot] is comfortable – and that's another point that makes it such a good site." (personal communication, March 5, 2002) To Edward, "Slashdot has the feeling of someone emailing their friends. It'd be weird if it had the CNN feel... It feels like tech news should be. Like there's a reason that it fits, and it's because of the personalities of most of the people [contributing to the site]." (personal communication, November 28, 2001) Significantly, Edward credits a broad body of fellow users and their activity on Slashdot for producing a sense of familiarity on it. Equally significant, however, is that his own participation in the site brings him to a point where he can label a traditional, professionalized style of news coverage as strange and even inappropriate. Further emphasizing the familiar, personal nature to news exchange on Slashdot, Sam

described: “It does have such a nice cross section of people whose voices I care about hearing that it makes it a worth while place to go. So it's very natural. In a way it's the ideal dinner table. If I could watch the nightly news, and I could invite all these people around to come and talk to me, that would be great.” (personal communication, November 17, 2001)

### *Transforming User-News Relationships*

The inscription and incorporation of users as the central producers of content on Slashdot's collaborative news network enables the emergence of a new body of user practices around the sourcing, analysis and ultimately reading of news. With several prominent technological features of the site enabling users to serve as both sources for news stories, and commentators on those stories, Slashdot highlights users' capacity to adopt responsibilities conventionally reserved in news production for professional reporters and credentialed experts. From many readers' perspective, such affordances offer several pragmatic advantages for news production – including the maximization of news coverage on specialized topics, and an efficiency in the generation and reporting of news stories. Emphasizing the expertise of users and the value of their participation, news reading is transformed from an act primarily centered on the reports and analyses of news professionals and designated experts, to one often equally focused on the assessment and opinions of fellow users on the network.

As significant as the advantages perceived from a practice of user content construction, then, are the new relationships that emerge between users and the site of news from such practices. Users are no longer conceived of, or conceive of themselves and other users, as mere passive consumers of news, but are instead valued as agents with crucial knowledge and expertise that may participate as both commentators and sources of news. Reflecting the individual voices, personalities, values, and interests of its audience, news on Slashdot's

collaborative news network cultivates a more personalized relationship of users to news. The unique role users are entrusted with and are able to choose to play as constructors of news, then, is one that powerfully impacts user perception of their site and their roles on it, often cultivating a heightened sense of loyalty and personal investment to it. While the incorporation of users as producers of news may foster such dedication to Slashdot and its collaborative news network, a number of other complications may also be generated because of the blurring of lines between the functions and responsibilities of users and editors. As will be discussed in a future chapter, the question of who does or should exercise authority and control over the product of news and the process of its construction is the subject of continued debate and struggle on the collaborative news network.

## NOTES

Akrich, M. (1992). The de-description of technical objects. In W. Bijker & J. Law (Eds.), Shaping technology/building society, (pg. 205-224). Cambridge, MA: MIT Press.

Bijker, W. (1995). Of bicycles, bakelites and bulbs: Toward a theory of socio-technical change. Cambridge, MA: MIT Press.

Bijker, W., Hughes, T. & Pinch, T. (1987). The social construction of technological systems. Cambridge, MA: MIT Press.

Bijker, W. & Law J. (1992). Shaping technology/building society. Cambridge, MA: MIT Press.

Boczowski, P. (2000). Distributed construction: Changing regimes of information creation in online newspapers. Paper presented at the Annual Meeting of the International Communication Association, Acapulco, Mexico, June.

Boczowski, P. (2001a). Affording flexibility: Transforming information practices in online newspapers. Doctoral dissertation, Cornell University, Ithaca, NY.

Carlson, W.B. (1992). Artifacts and frames of meaning: Thomas A. Edison, his managers, and the cultural construction of motion pictures. In W. Bijker & J. Law (Eds.), Shaping technology/building society, (pp. 175-198). Cambridge, MA: MIT Press.

Charity, A. (1995). Doing public journalism. New York, NY: Guilford.

Deuze, M. (2001). Online journalism: Modeling the first generation of news media on the world wide web. First Monday, 6. (10). Retrieved April 12, 2002, from [http://www.firstmonday.org/issues/issue6\\_10/deuze/](http://www.firstmonday.org/issues/issue6_10/deuze/)

Gans, H. (1979). Deciding what's news: A study of CBS Evening News, NBC Nightly News, Newsweek, and Time. New York: Pantheon Books.

Glasser, T. & Craft, S. (1998). Public journalism and the search for democratic ideals. In T. Liebes & J. Curran, (ed.) Media, Ritual, and Identity. New York, NY: Routledge.

Kenney, K., Gorelik, A. & Mwangi, S. (2000). Interactive features of online newspapers. First Monday, 5, (1). Retrieved April 12, 2002, from [http://firstmonday.org/issues/issue5\\_1/kenney/](http://firstmonday.org/issues/issue5_1/kenney/)

King, E. (1998). Redefining relationships: Interactivity between news producers and consumers. Convergence, 4. (4). 26-32.

Latour, B. (1992). Where are the missing masses?: The sociology of a few mundane artifacts. In W. Bijker & J. Law (Eds.), Shaping Technology/Building Society, (pp. 225-258). Cambridge, MA: MIT Press.

Light, A. & Rogers, Y. (1999). Conversation as publishing: The role of news forums on the web. Journal of Computer-Mediated Communication, 4 (4). Retrieved April 12, 2002, from <http://www.ascusc.org/jcmc/vol4/issue4/light.html>

MacKenzie, D., & Wajcman, J. (1985). The social shaping of technology. Milton Keynes, UK: Open University Press.

Massey, B. & Levy, M. (1999). Interactivity, online journalism, and English-language web newspapers in Asia. Journalism and Mass Communication Quarterly, 76. (1), pp. 138-151.

Merritt, D. (1995). Public journalism and public life. Hillsdale, NJ: Lawrence Erlbaum Associates.

Newhagen, J., Cordes, & Levy, M. (1995). Nightly@nbc.com: Audience scope and the perception of interactivity in viewer mail on the Internet. Journal of Communication, 45, (3), 164-175.

Roshco, B. (1975). Newsmaking. Chicago: University of Chicago Press.

Rosen, J. (1994). Public journalism: First principles. In D. Merritt & J. Rosen (Eds.), Public journalism: Theory and practice. Dayton, OH: Kettering Foundation.

Schlesinger, P. (1978). Putting 'reality' together: BBC news. London: Methuen.

Schultz, T. (1999). Interactive options in online journalism: A content analysis of 100 U.S. newspapers. Journal of Computer-Mediated Communication, 5 (1). Retrieved April 12, 2002 from <http://www.ascusc.org/jcmc/vol5/issue1/schultz.html>

Schultz, T. (2000). Mass media and the concept of interactivity: An exploratory study of online forums and reader email. Media, Culture & Society, 22. 205-221.

Slashdot.org. (2002a, March 19). Larsen ice shelf collapses. Retrieved March, 19, 2002, from <http://slashdot.org/article.pl?sid=02/03/19/1245202&mode=thread&tid=134>

Slashdot.org. (2002b, March 19). First 802.11 wireless movie theater? Retrieved March, 19, 2002, from <http://slashdot.org/article.pl?sid=02/03/19/2232204&mode=thread&tid=95>

Soley, L. (1992). The news shapers: The sources who explain the news. New York: Praeger.

Tuchman, G. (1978). Making news: A study in the construction of reality. New York: The Free Press.

Figure 1. Screen shot of user interface for the submissions bin.

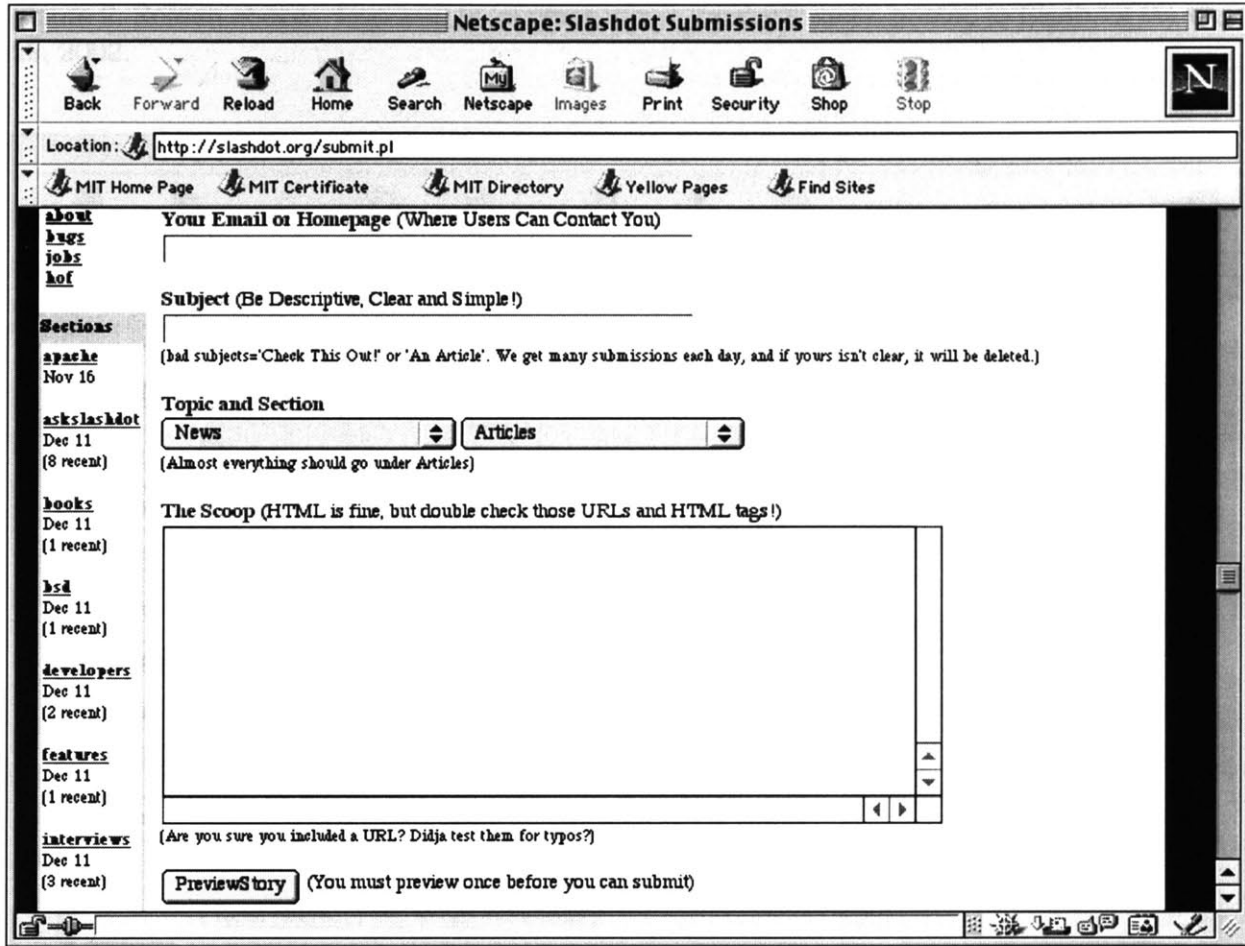


Figure 2. Screen shot of "First 802.11 wireless movie theater?" story, posted to Slashdot March, 19, 2002.

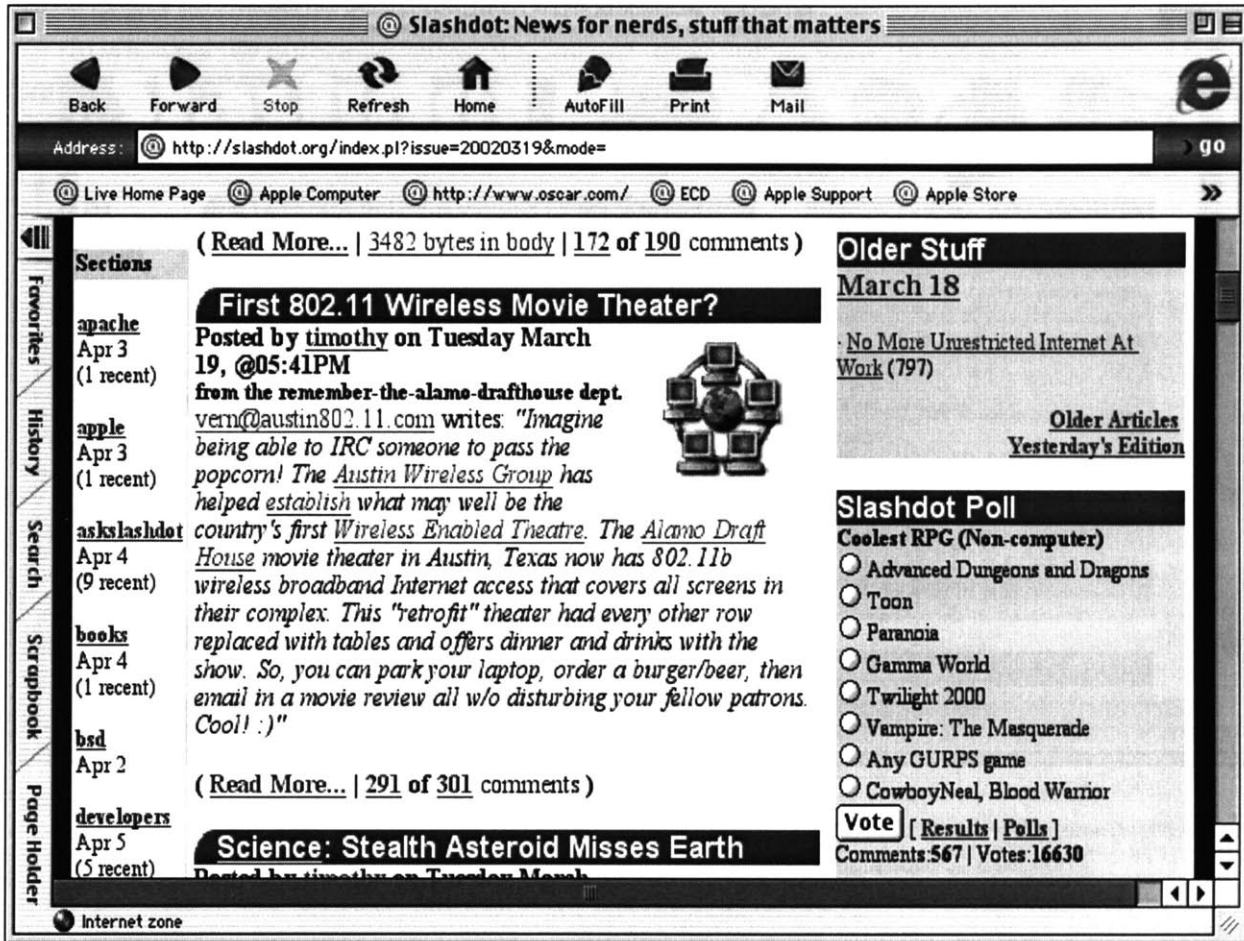


Figure 3. Screen shot of "Larsen ice Shelf Collapse" story, posted to Slashdot March, 19, 2002





Figure 4. Screen shot of interface for editors' submissions bin. Taken Dec. 11<sup>th</sup>, 2001.

[ Home | Topics | Stories | New | 27 Submissions | Poll | Blocks | Colors | Filters | Sections | Users | Templates | Vars | Site | Help ]

### Submissions Admin

	All Sections	articles	askslashdot	books	developers	features	yro
<b>Unclassified</b>	27	20	1	0	1	1	4
<b>Back</b>	34	29	2	0	0	3	0
<b>Hold</b>	93	9	76	7	0	0	1
<b>Quik</b>	21	21	0	0	0	0	0

nice	Articles	<input type="checkbox"/>	<a href="#">Archos Jukebox Firmware Hacks</a>	elinenbe (9)
	Articles	<input type="checkbox"/>	<a href="#">Sony cracking down on Playstation m...</a>	alexmogil (6)
MS/DVD	Articles	<input type="checkbox"/>	<a href="#">WMA in your DVD</a>	ByTor-2112 (23)
tl: cool for tb	Articles	<input type="checkbox"/>	<a href="#">NTT &amp; Sony Sign Deal to bring P...</a>	mattboston (0) <a href="http://www.cyberbite">http://www.cyberbite</a>
MS: this case i:	Your Rights Online	<input type="checkbox"/>	<a href="#">CA Appeals court finds spam to be T...</a>	Anonymous Coward
	Features	<input type="checkbox"/>	<a href="#">Is Guardent's new Open Source insp...</a>	saint10 (2)
MS/Passport	Articles	<input type="checkbox"/>	<a href="#">MS Forces NET on Asheron's Call/Zo...</a>	Supermikey (0)
	Articles	<input type="checkbox"/>	<a href="#">Sony prevents selling of PS2 modchi...</a>	class_A (6)
I got this ass':	Articles	<input type="checkbox"/>	<a href="#">Political Campaign via Spam</a>	Anonymous Coward
idiocy	Articles	<input type="checkbox"/>	<a href="#">"Video games lack diversity"...</a>	DrCode (45) <a href="mailto:jsf@cypress.c">mailto:jsf@cypress.c</a>
tl: Does it dis:	Articles	<input type="checkbox"/>	<a href="#">Oh no, Microsoft NET ships in a mo...</a>	Andreas(R) (1) <a href="mailto:andreasr@@@st">mailto:andreasr@@@st</a>
	Articles	<input type="checkbox"/>	<a href="#">MS Unveils 'Corona'</a>	MetaCow (3) <a href="mailto:Fr33R0ving@ne">mailto:Fr33R0ving@ne</a>
MS/DVD	Articles	<input type="checkbox"/>	<a href="#">DVD player chipsets to include Wind...</a>	Anonymous Coward
	Your Rights Online	<input type="checkbox"/>	<a href="#">\$2,000 victory in anti-spam lawsut...</a>	TheSync (50) <a href="mailto:info@thesync">mailto:info@thesync</a>
	Articles	<input type="checkbox"/>	<a href="#">Lincoln wrote CGI pm to publish gen...</a>	Lisa <a href="http://www.oreillyne">http://www.oreillyne</a>
MS/Passport	Articles	<input type="checkbox"/>	<a href="#">Microsoft breaks gaming zone with P...</a>	Anonymous Coward
	Developers	<input type="checkbox"/>	<a href="#">Open Source machine vision</a>	Anonymous Coward
MS/Passport	Your Rights Online	<input type="checkbox"/>	<a href="#">MS Passport - Safe Surfing or Stark...</a>	HumbleHobbit (0) <a href="mailto:burnettms@aol">mailto:burnettms@aol</a>

Figure 5. Screen shot of discussion forum for “Larsen ice shelf collapses” story, posted to Slashdot March 19, 2002, to which over 1200 comments were posted.

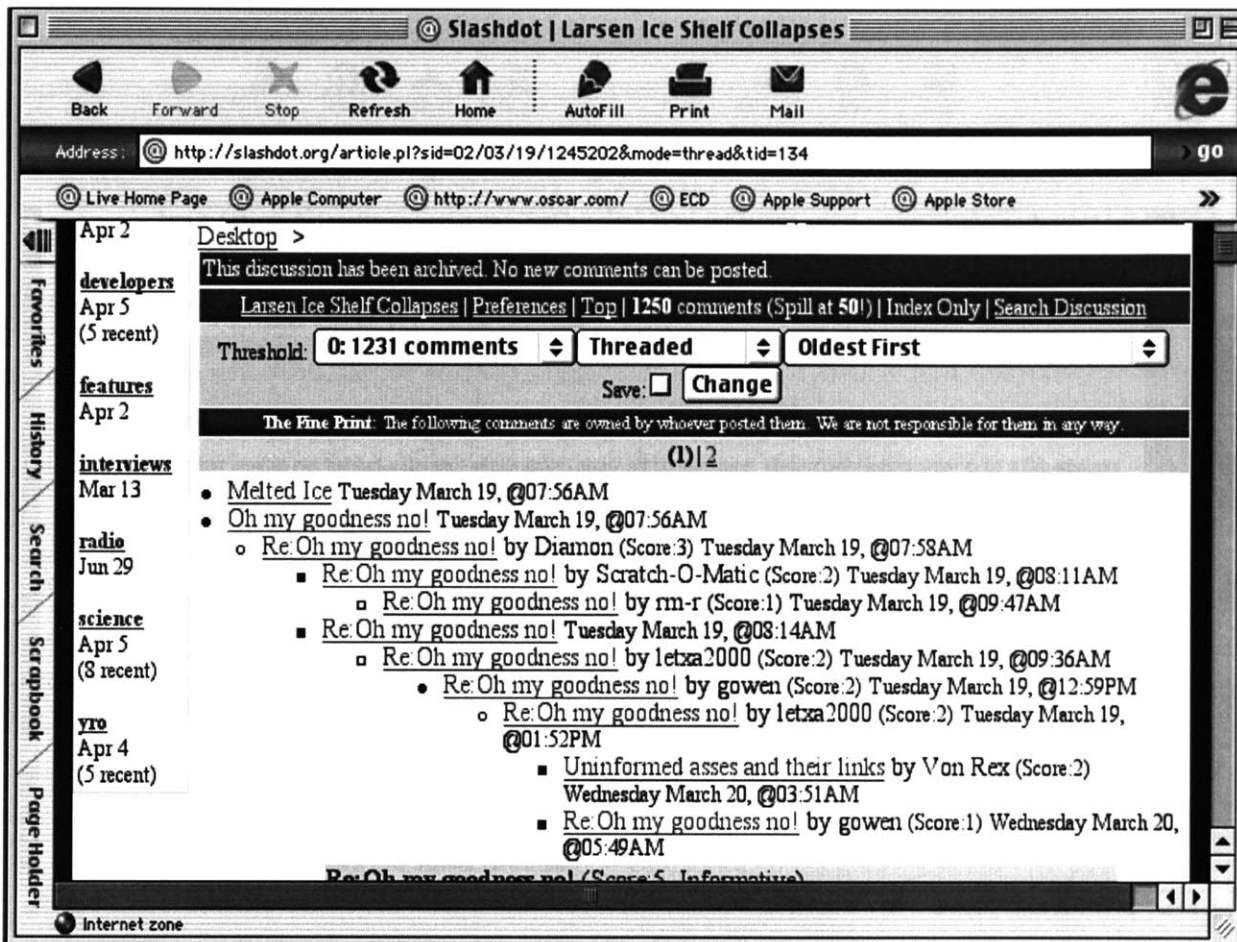
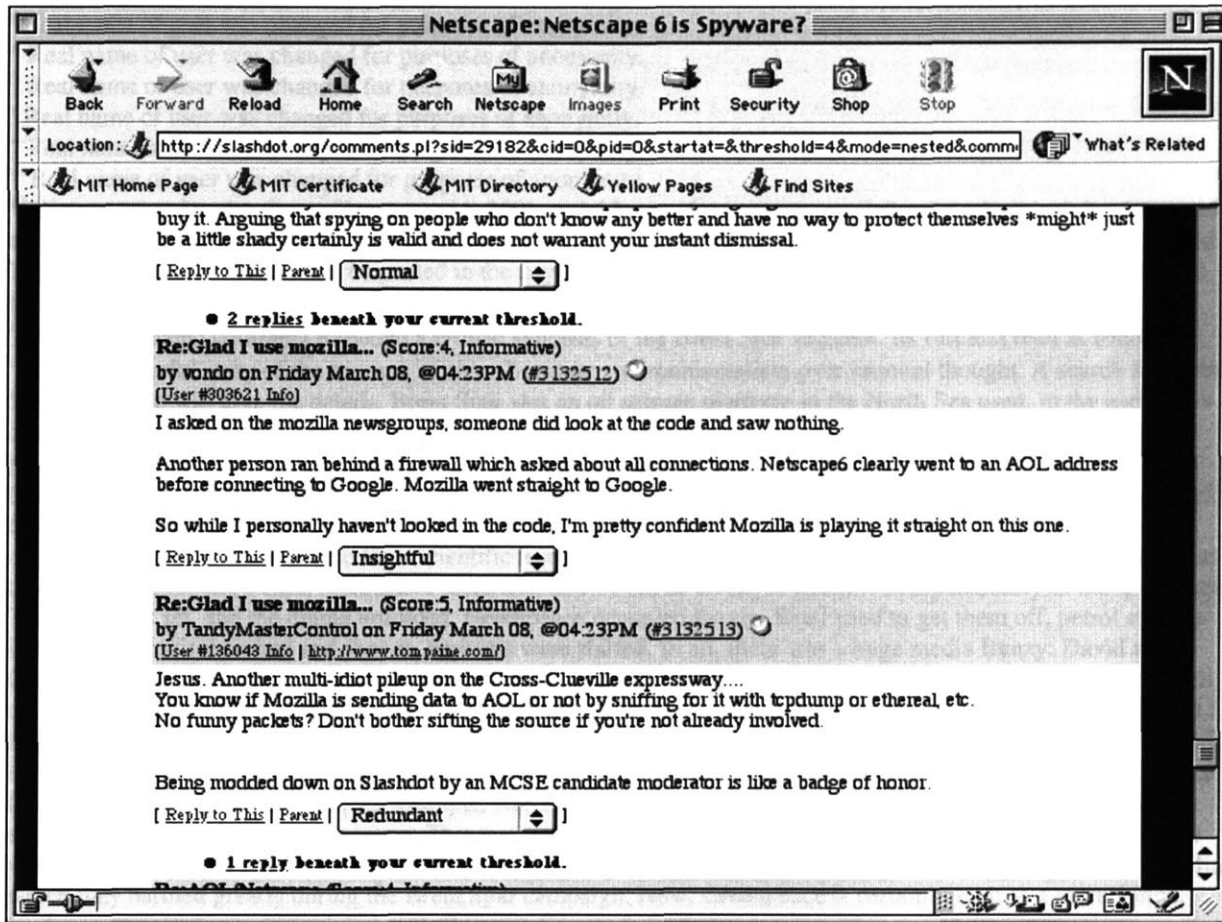


Figure 6. Interface for user with moderation status: a score tab appears beside each post, allowing users to rate comments by such categories as "Intersting," "Insightful" or "Redundant."



## ENDNOTES:

---

<sup>i</sup> Real name of user was changed for purposes of anonymity.

<sup>ii</sup> Real name of user was changed for purposes of anonymity.

<sup>iii</sup> Real name of user was changed for purposes of anonymity.

<sup>iv</sup> Real name of user was changed for purposes of anonymity.

<sup>v</sup> Real name of user was changed for purposes of anonymity.

<sup>vi</sup> Real name of user was changed for purposes of anonymity.

<sup>vii</sup> Real name of user was changed for purposes of anonymity.

<sup>viii</sup> A story posted to the site on December 11, 2001, at 7:22 p.m., for instance, on Federal Authorities' day-long raid on alleged software pirates in 21 cities, generated 561 comments by 11p.m. that night. Several stories on the World Trade Center and Pentagon attacks posted in the days following September 11<sup>th</sup>, 2001 to date have generated more than 1,000 comments, and in one story, posted on September 12<sup>th</sup>, 2001, more than 2,000 comments.

<sup>ix</sup> A second related comment provided a critical synopsis of the Brent Spar incident. Its full text read as follows:

“Ah. A wonderful story of the triumph of show business environmentalism over rational thought. A search for Brent Spar on google will give the details. Brent Spar was an oil storage platform in the North Sea used, in the early days of the development of the North Sea fields, for storage of oil before loading into tankers and shipping. It had been phased out by pipelines and was due to be decommissioned. After 3 years of consultation with interested parties (including environmental groups) it was decided to dump it in a deep ocean trench. The reasons were: occupational risk in dismantling it on land; technical difficulty; expense; and risk of contamination. Enter Greenpeace. They climbed aboard and, according to their scientific tests, the rig was riddled with heavy metals, oils (5,500 tonnes was the figure mentioned), PCBs, radioactive materials, and would be an act of extreme irresponsibility to dump it at sea. The stage was set, and the drama unfolded. Greenpeace occupied the rig. Shell tried to get them off, petrol stations in Europe were firebombed and shot at, boycotts were started. In all, there was a huge media frenzy: David and Goliath; a huge faceless bureaucracy (and oil company at that) versus people who are trying to save the earth. Shell decided to abort the sinking, and the rig was towed to a deep water fjord in Norway to await an alternative. Round 1 to Greenpeace. Round 2 was conducted by a Norwegian Consultancy, who actually did a very detailed inventory of the rig. They published figures that agreed with the Shell figures, and were completely at odds with the Greenpeace figures (the actual amount of oil, for example, was 50 tonnes). The only conclusions were that Greenpeace were either lying, or hopelessly incompetent. This was not so much a defeat for Greenpeace as a catastrophe. Their role was as a scientifically based environmental pressure group. Their main asset was a good relationship with the media, which they harmed greatly during the Brent Spar campaign. Now, Greenpeace is certainly seen as a more fringe, hardcore organisation, and I think that it all traced directly from that campaign. They may have won a victory with Brent Spar, but it has turned out to be a Pyrric victory.”

<sup>x</sup> Real name of user was changed for purposes of anonymity.

<sup>xi</sup> Real name of user was changed for purposes of anonymity.

Collaborative News Networks: Distributed Editing, Community,  
and the Construction of Online News on Slashdot.org.  
Chapter 3: Distributed Editing and the Decentralization of Editorial Control

Early in October, 2000, Michael Sims, then a 26-year-old former web programmer for the Department of Energy, posted a 20-paragraph long essay to the site to officially announce his first day as a full time Slashdot editor. Having previously volunteered as a part-time editor for the “Your Rights Online” section of the site, which focused on free speech, encryption, privacy policy and political news, Sims opened the post writing, “Well, I join Slashdot (aka the “sinister Andover keiretsu”) full-time today. It seems worthy of a story, although I’ll limit it to the YRO [Your Rights Online] section since those have been my traditional stomping grounds. There’s no real news below, just some rambling ...” (2000, October 2) Sims went on to write:

Since I started paying attention to new activism and politics (circa 1995), I’ve seen that most journalism is incredibly biased, based on lies and innuendo and press releases and product promotion... I hope to change that... I think what I will try to avoid is any suggestion that I am unbiased. Here, let’s make it clear: I AM BIASED.

Bullet pointing his “biases” as pro-free speech, pro-encryption, pro-privacy, pro-Linux, anti-corporations, anti-copyright and patents, and pro-science, he added, “I hope that’s enough for a small taste... If my biases totally offend you, you might want to go right now to your user preferences and check the box to block stories posted by me,” and closed with a question to readers, “What do you want to see out of Slashdot, that you think I can do?”

Reflecting back in the post more than a year later, Sims says, “I’m not sure why I posted it. I don’t think that [any of the other editors] did [a self-introduction]. Basically because there are

a limited number of people who are authors for Slashdot, it might seem a little strange to other readers if someone new just came on. So I just kind of figured that I would say 'hi' – and I don't know how many people read it or cared.” (personal communication, December 7, 2001)

For Sims, one of five of Slashdot's site editors, the act of posting his own introduction to the site had been one that had been spontaneous and self-motivated. In contrast to editorial routines and norms in traditional newsrooms, Sims didn't need to have gotten approval from the editorial ranks in order to publish an essay that no other new editor had published before. Neither had he established a precedent and created a new policy of editorial self-introduction through his post, since no future editors were obligated to publish similar essays. And while a concern for any editorial and staff policy seemed to be absent in Sims' post, a sense of obligation to the site's readers and a pointed interest in their feedback revealed itself as a driving motivation for it. The unique and seemingly incompatible fusion between a sense of individual spontaneity and of a selfless obligation to the site's readers that manifested in Sims' posts is significant. For the mutual expression of both are connected to the model of the decentralized editorial control that is practiced on Slashdot's collaborative news network, and that reshapes relationships within it through a distribution of editorial authority among both users and fellow editors of the site.

While the organizational culture of mainstream news media has been argued to constrain news production process by centralizing control within a limited party of editors and managers, and enforcing professional standards and a commonality of work place practices, the organizational structure of Slashdot's editorial team fosters instead a pointed multiplicity of editorial styles and voices. Similarly, while decision making in news production has been argued to be determined through editorial routines and professional hierarchies to the exclusion of audience input, editorial decision making in Slashdot's collaborative news network occurs instead with an explicit consideration of audience concerns, interests and feedback.

### *Heterarchy and the Polyphony of Editorial Styles*

Borrowing again from Boczkowski's analytical framework on distributed construction (2000, 2001) that drew emphasis to the reformation of organizational structures in online news publishing, I argue that Slashdot's collaborative news network embodies what sociologists of organizations have termed a heterarchical structure (Stark, 1996, forthcoming: Stark & Girard, forthcoming) where a concentration of editorial control over production processes is minimized. Such a model contrasts significantly with the hierarchical model of news production media companies have traditionally relied upon, where editorial power and authority is kept centralized and contained within a limited party of editors and managers, and where the role of audiences in decision making is diminished. The relationship a heterarchical model fosters then among individual editors, and between audience members and editors is not one of control and dependence, as would be stressed within a hierarchical model, but rather of collaboration and interdependence. While the traditional organizational hierarchies of news production have typically functioned to maintain conformity and consensus among news workers, then, a heterarchical model of production allows a diversity of individual styles and approaches to the editing of content to develop. Rather than operating, through routinized practices, to facilitate efficiency, rationality, and objectivity, Slashdot's heterarchical model works instead to promote a diverse body of production styles and content that appreciates the subjectivity of interpretation, and a transparency of those frames of interpretation, over the objectivity of facts.

According to Stark, "heterarchies represent a new mode of organizing that is neither market nor hierarchy: whereas hierarchies involve relations of dependence and markets involve relations of independence, heterarchies involve relations of interdependence." (forthcoming, p. 9) As the term suggests, heterarchies are characterized by relations of minimal hierarchy and

by organizational heterogeneity. While traditionally structured organizations attempt to maximize internal order and control by enforcing a hierarchical system and establishing standards and clear lines of authority (Powell, 1990), heterarchies exist through permitting and even fostering a diversity of organizational logics and minimizing conformity. Studying Postsocialist Eastern European firms and New York City new media firms as examples of heterarchies have manifested, Stark argues that heterarchies have tended to develop under circumstances of “transforming economies.” In such conditions, firms “face extraordinary uncertainties, caused by the rapidity of technological change or the extreme volatility of the market... [or] shaped by political and institutional uncertainties.” (forthcoming, p. 4)

To cope with such vulnerabilities, rather than striving to achieve a stable, uniform concordance, heterarchies foster a polyphony of styles and systems as a means of accommodating greater flexibility, learning and adaptability. As Stark writes, heterarchy's:

organization of diversity is an active and sustained engagement in which there is more than one way to organize, label, interpret and evaluate the same or similar activity... It increases the possibilities of long-term adaptability by better search, “better” not because it is more consistent or elegant or coherent, but precisely because the complexity it promotes and the lack of simple coherence that it tolerates increase the diversity of options. (forthcoming, p. 8)

A heterarchic accommodation for a diversity of belief systems, among and between both users and editors, defines the practices and principles surrounding editorial decision making, particularly those concerning several of Slashdot's key features of the submissions bin and the moderation system. Rather than attempting to standardize editors' and users' treatment of and approach to such features, Slashdot exhibits an allowance for the emergence of multiple and



often inconsistent production styles and voices. Emphasizing the productivity that may be derived from the accommodation of such a lack of internal order, Gernot Grabher explains that in fact:

heterarchies derive their evolutionary strengths from a certain tolerance of inefficiencies... The redundancy of business models, philosophies and practices provides a rich genetic pool for the evolution of new organizational mutations; the necessary idleness in project-based work provides an arena for improvisation and reflection. (2001)

The key, Grabher argues, for an organization to benefit from such a diversity of co-existing belief systems is to retain enough reflexivity to continually recognize and learn from its errors, and redefine its assets.

It is precisely through its allowance for a complex, heterarchical layering of diverse belief systems and its cultivation of a multiplicity of production styles that has enhanced Slashdot's flexibility and capacity to address a diversity of interests among its audience. Unlike Grabher's notion of heterarchic activity, however, a consideration of Slashdot may suggest that productivity and longevity may reside not so much in the eventual emergence of a single or more select systems of enhanced efficiency, but in the ability to continually maintain a network tolerant of diversity - and in fact, perhaps, necessarily increase diversity.

*Hierarchy, Conformity and Control in News Production*

The organizational culture of professional news has often been described as a hierarchically structured one that constrains news production practices through a cultivation of professional standards and common body of work processes. (Breed, 1955; Gans, 1979; Roshco, 1975; Schlesinger, 1978; Shoemaker & Reese, 1991; Sigelman, 1973; Soloski, 1989; Tuchman, 1978) Such an enforcement of norms maximizes control over news workers' routines and practices, confining decision making authority and the establishment of such norms to a limited body of high-ranking editors and executives, and minimizing opportunities for variation and non-conformity in the product and practice of news work.

In his study on the socialization of journalists, Warren Breed argued that newspapers' top leaders construct a "policy" for their organization that establishes a "more or less consistent orientation shown by the paper, not only in its editorial but in its news columns and headlines as well." (p. 327) Although policy is rarely made explicit, it is maintained and reproduced among workers by a system of "covert" enforcement and a socialization process where the work of reporters in violation of policy will be depreciated by their editors. According to Breed, "The process of learning policy crystallizes into a process of social control, in which deviations are punished (usually gently) by reprimand, cutting one's story, the withholding of friendly comment by an executive, etc." (p. 332) In order to succeed in the news room, then, a new staff reporter internalizes policy and seeks to share the norms of executives and veteran staffers, "and thus his performance comes to resemble theirs. He conforms to the norms of policy rather than to whatever personal beliefs he brought to the job, or ethical ideals." (p. 332) Under a traditional model of news production then, news staff members are encouraged to quickly learn to replicate the professional practices, values and interests of higher level reporters and editors, and largely aim to minimize the expression of their own personal styles, voices or politics.

Emphasizing how such an idealization of conformity and suppression of individuality manifests in the news product, Philip Schlesinger in a study of the BBC writes that BBC “editors of the day, while apt to stress their independence of action, are also very aware of being entrusted to produce an output which is ‘reliable,’ consistent through time, and indistinguishable from that of their fellows.” (Schlesinger, 1978, p. 147) Quoting an editor who had criticized a portion of the day’s broadcast for being too idiosyncratic as saying, “It mustn’t be too obvious that someone else is doing every shift,” Schlesinger concludes that in the BBC news room “editorial soundness is identified by its consistency.” (p. 149) By demonstrating the personal restraint news workers are required to practice in order to maintain conformity, Schlesinger crucially reveals the degree of continual effort needed from news workers to adhere to policy.

Providing a detailed account on the exercise of hierarchy to impose conformity through news rooms, John Soloski describes his observations of the role and function of news leaders in editorial meetings, story assignments, routine reprimands and the supervision of the paper’s production as a primary means of ensuring staff members’ adherence to a paper’s policy. Identifying chief editors as the central enforcers of newsroom policy, Soloski describes his witnessing of editorial meeting protocols, where “the editor selects stories from the news budgets prepared by junior editors, and tells the city editor which reporters to assign various stories. He also uses the meeting to criticize the work of the news staff... [couching his criticisms] in terms of improving the professional competence of the news staff.” (Soloski, 1989, p. 220) Significantly, however, Soloski also details a practice where head editors distance themselves from their own criticisms of reporters, relying instead on junior editors to deliver the criticisms to the reporters they manage, and thereby rendering their specifications less subject to dispute or contradiction. Emphasizing the importance assigned to the head editors’ duty to minimize conflict through the exercise of authority, Soloski points to junior editors’ and staff reporters’ recognition of and dependence on head editors as arbiters of dispute and conflict

whose intervention and resulting decision should remain uncontested. Although not specified by Soloski, such deference might arguably be seen as justified by staff members' assumption that higher-ranking editors, privileged with greater access to decision-making centers and sites than ordinary staff, have better decision-making authority and skill than the workers they manage. Closed off from editorial meetings and often distanced from the upper-level editors who criticize their work, reporters and staff are for the better part denied insight into newsrooms decisions that would often allow them to act as self-arbiters in their own disputes.

Other scholars have looked beyond single news organizations to consider how a standard body of news may be established across various newsrooms. Studying professionalism as a rationalizing agent for the administration and management of newsroom, some scholars have argued that professional norms developed as an agent of conformity to provide an efficient and economical means for news organizations to control the behavior of their reporters and staff. (Soloski, 1989; Martin & Hansen, 1998; Roshco, 1975; Tuchman, 1978) According to Soloski, professional practices were adopted across individual newsrooms so that, "it is unnecessary for individual news organizations to arbitrarily establish elaborate rules and regulations for staff members... [or] establish expensive and time-consuming training programs for new journalists since all journalists come to the organization with a certain amount of professional training." (p. 212)

Significantly, both news policy and professionalism mutually operate to minimize conflict and disagreement within newsrooms, fostering mechanisms to establish and enforce consensus and conformity instead. (Breed, 1955; Gans, 1979; Roshco, 1975; Soloski, 1989; Tuchman, 1978) According to Tuchman, editors strive to "maintain a careful equilibrium, for dissonance interferes with the daily accomplishment of the group's task. Newsworthiness is constituted by mutual agreements accomplished by editors working to maintain this interpersonal balance." (Tuchman, 1978, p. 35) Extending an obligation to consensus beyond upper-level news

workers, Soloski writes: "Like a game, professional norms and policy are used to minimize conflict within news policies are rules that everyone has learned to play by; only rarely are these rules made explicit and only rarely are these rules called into question." (p. 218) Key to the functioning of both news room policies and professionalism then is a "covertness," according to Breed, and a "non-explicitness," according to Soloski, of their enforcement. Such a means of imposing conformity, significantly, functions as a preserving mechanism for policy, keeping it safe from either being put up for debate or being made transparent by instead implementing it as the unspoken, natural, inalterable means of organizing relations.

A final crucial feature in the enforcement of conformity and adherence to policy in news rooms, is the fostering of news workers' detachment to and disregard for constituencies with alternative interests from editorial managers. Advocating an isolation of news workers from audiences, the organizational culture of newsrooms instead encourages a heightened dependence on news organization leaders and fellow workers for approval. According to Breed:

The newsman's source of reward is located not among the readers, who are manifestly his clients, but among his colleagues and superiors. Instead of adhering to societal and professional ideals, he re-defines his values to the more pragmatic level of the newsroom group. He thereby gains not only status reward, but also acceptance in a solidary group engaged in interesting, varied and sometimes important work. (Breed, 1955, p. 355)

While scholars, then, have tended to emphasize professionalism within or across newsrooms as bearing a key influence in the shaping of news workers' production practices, notoriously absent has been the role of audiences in shaping or influencing such practices. Of the five factors Pamela Shoemaker and Stephen Reese (1991) identify in their framework for understanding the

relationship of various elements inside and outside of media on the production of news content, four factors were either inter or intra connected to the news media. Among such factors were the personal values of news workers themselves, their work place routines, the organizational hierarchy of a newsroom, and the publications or broadcasts of other existing professional media organizations. Only one factor Shoemaker and Reese identified – the ideological forces operating in a wider society – was not primarily sustained and reproduced by news workers themselves. Conspicuously left unmentioned and unaccounted for, however, was the role of audiences as a central factor in the shaping of news production processes.

The organizational culture of professional news, then, is one determined by structures of hierarchy that privilege the interests and voices of those in managing editorial positions and require an assimilation of values and interests by their staff members. Such an institutional structure constrains the news production process through a cultivation of professional standards and common body of work practices. The enforcement of norms operates to maximize control over news workers' routines and practices, and confine decision-making authority and the establishment of such norms to a limited body of high-ranking editors and executives. The valuation on organizational conformity and consensus rationalizes and streamlines news production, minimizing opportunities for variation and suppressing the diversity of interests that might otherwise manifest or be expressed in the product and practice of news work.

Significantly, an organizational structural modeled on hierarchy and the cultivation of conformity seem to be necessarily intertwined. With editorial practices constructed to create a concentration of power and authority among a limited body of managing editors, flows of knowledge and information are kept confined to particular portions of the hierarchy. Such gaps of knowledge and a lack of transparency in decision making increases a sense of dependency on upper-level editors by the staff members they manage. The "covertness" of editorial policy and non-explicitness of specific editorial decisions that scholars have critically observed as

operating in newsrooms, further curtails opportunities for editorial policy to be debated, contested, or redefined by the participants of news production. The disintegration of hierarchy in news production then, and a loss of the social and professional conformity it's been argued to maintain, would seem to have implications on both the accessibility and openness of editorial decision-making processes, and the degree of organizational complexity it sustains.

### *Collaborative News Networks as Heterarchy*

Working from homes and offices scattered across five different states, and communicating predominantly by instant relay chat, Slashdot's editorial team embodies a sort of virtual news room that contrasts with the physical concentration of news staff that defines news room productivity. Rob Malda, the founder and head editor of the site, works primarily from his home in Holland, Michigan; Jeff Bates, a co-editor of the site since its earliest days, from a home and office in Boston area; and Timothy Lord, Michael Sims, and Cliff Wood, all site editors for just over two years, from their homes in Tennessee, Staten Island, and Virginia. Describing the process of editing from a distance, Wood says, "We talk to each other every day. We all sign on to the IRC channel – the editors and the people who administrate the machine – and they, all the editor as and the coders and all the people working on the site there that day, get together and we talk about the day's issues. It's like a virtual office." (personal communication, December 13, 2001)

Significantly, only two of the editors – Sims and Lord – work full time in their editorial roles, while the other three split their responsibilities between editing and administering or coding for the site. With a rotating assignment for primary editorial responsibility, it's rare that the entire editorial staff is on duty simultaneously, and often only one or two are working in their editorial capacity at once. According to Malda, editing is performed by "anywhere from one to

four people on any given day," (personal communication, December 13, 2001) making it a continually shifting mix and balance of editors' voices from day to day. While many of the editors describe that when on duty, they remain logged in to the editors' IRC channel for the better part of the day, they say face-to-face meetings between editors are rare events, occurring sporadically and no more than a handful of times a year.

Significantly as well, although all the members of Slashdot's editorial staff share a common general interest in technology and computers, unlike a traditional newsroom, none share common professional experiences or training. For Maida, an art history and computer science double major in college, and Bates, a history and biology double major, Slashdot provided their first full-time jobs after completing their undergraduate degrees at Hope College in Holland, MI. Wood had been working several years as free lance programmer before coming on to Slashdot as a part-time coder and editor. Sims, of course, had worked for several years as a web programmer for the Department of Energy. And Lord, who had worked at his college newspaper as an undergraduate and remains the only editor with any formal experience working in journalism, had joined Slashdot's editorial team after having worked at an advertising agency.

The physical dispersion and lack of unifying professional training or experience of Slashdot's editorial team give material form to the heterarchic structure manifested through a collaborative news network. As crucial, however, are the new patterns of editorial activity and decision making that emerge through such a decentralized organizational structure. Studying the submissions bin as a key site of editorial decision making in Slashdot's virtual news room, editorial activity in a collaborative news network reveals itself to be sustained by a cooperation among participants rather than deference to authority, a cultivation rather than suppression of personal expression, a pointed consideration rather than rejection of audience feedback, and ultimately an elevation of subjectivity, over rationalization, in news production and its product.



### *Submissions Bin: The Diversification of Editorial Styles*

While news organizations' traditional hierarchical structure and production routines seek to enforce a unified editorial identity and style through the control of staff reporters and adherence to established professional conventions, the interdependence of users and editors exhibited on Slashdot produces a considerably more fluid editorial identity that morphs and adapts through the negotiation of multiple user and editorial actions and tastes. Editorial decision making occurs then through a consideration of a wide diversity of voices from distinct constituencies, attempting to accommodate rather than assimilate them. The editorial practices surrounding Slashdot's user submissions bin, the feature of the site from which the predominant portion of the site's content is gleaned, and the decision making processes behind the construction of the site's daily content through it, exhibit precisely such a move. By affording users a large role in influencing and shaping the site's news agenda, and fostering a diverse range of individual editorial approaches to it, the submissions bin immediately reveals itself as a key feature through which a heterarchical model manifests.

One of the notable aspects that distinguishes Slashdot's heterarchic model of news production from traditional models is the absence of an attempt to enforce a common editorial policy or standardized method for treating story suggestions received through the submissions bin. While the practice of editorial decision making in traditional news room are organized for the optimization of managerial control and to ensure staff members' adherence to policy, it is a curious lack of such an exercise of power that characterizes Slashdot's editorial team members' approach to the submission bin. As Malda describes it, editors' treatment of the submissions bin is "pretty open ended... If you're around, you read the submissions bin. We have a schedule so we know who is definitely in charge of posting stories during normal weekday business hours,

but that's only a last resort." (personal communication, December 13, 2001) Contrasting a editorial relations under Slashdot's model of news production from those formed under a hierarchical arrangement of relations under professional news models, Sims adds:

In traditional news, there is sort of a function that the chief editor is keeping control over the troops. He wants to know what everyone is doing if only to make sure that they're not pursuing some silly story that he's not going to let be printed. Because we have a lot more independence, there's less need for that kind of management approach. (personal communication, December 7, 2001)

Such a lack of constraint on individual editors' activity is similarly mirrored in an attitude of permissiveness toward editorial content. While traditional editorial staff strives to shape content to conform to a consistent organizational style and voice, Slashdot editors' treatment of submissions bin entries exhibits a pointed multiplicity of editorial styles. Rather than seeking conformity between editorial approaches, Slashdot's editors develop their own individualized system for filtering user submissions, using their own personal interests to determine editorial territory and to influence editorial content on any particular day. As Bates describes it:

Each of the editors have different interests and areas of expertise, and people know that. If there's a science story, they'll leave them in there for Michael or I to judge, since Michael worked at the Department of Energy before coming to work for us and I have a strong science background. (personal communication, November 13, 2001)

In contrast to traditional models of news production, such an approach not only allows for personal interests to be expressed through editorial style, but encourages it as well through the common recognition among editors of individual interests, and a shaping of posting practices based on such interests. Sims, for instance, recalls saving a story submissions on the building of an Ethernet-connected guitar for the editor who had the most passionate interest in music:

I thought, "this is cool," but I didn't post it. Instead I said "Hey Rob, there's a story submission that you'd be interested in." And he ended up posting the submission. And it's not like he's an expert in Ethernet connected guitars – but even though I find the subject interesting, it's not something that is as close to me or that I know as much about. (personal communication, December 7, 2001)

Unsurprisingly, such a lack of editorial conformity produces several complications in editorial production that are largely avoided in traditional news production models. Among these is a lack of consistency in the stories that are posted to the site on a day to day basis. According to Sims:

There's a fair amount of randomness to this... Any particular story just has a different chance of survival depending on who is reading at any particular time. We have a system where one person may be reading the submissions bin and posting things one day and have no influence on another day. So there's more opportunity for different things to get posted. This is kind of the opposite of the typical chain of command where there are a lot of people can be saying "yes" but it only takes one 'no' to stop an idea. We have a lot of people saying "no" and

only one of them needs to say “yes” for it to move forward. (personal communication, December 7, 2001)

Rather than operating on an assumption of a need to achieve consensus, Slashdot's editorial practices instead operate to encourage diversity and a range of expressions.

Similarly, the resistance to standardizing editorial practices and expression creates an environment where disagreements about the quality of a particular story submission, and whether or not it might deserve posting, routinely arise. Far from attempting to suppress disagreement through a manufacturing of conformity, however, Slashdot editors operate through a system where individual differences are instead encouraged. According to Bates, “Sometimes we’ll argue about something that was posted, or sometimes someone will post a story that I’ll read and then I’m like ‘grrr.’ But we don’t really have any conflicts between that, because it’s really about whose time is split up for posting what.” (personal communication, November 13, 2001) Rather than relying on rank and hierarchy as a means to resolve or erase differences, as well, Slashdot’s collaborative news network defers instead to individual judgment, anticipating that such distinctions in judgment will be continually present in editorial work.

Indeed, from the standpoint of Slashdot’s editors, to suppress the individual differences or to eliminate the distinctions in perspectives within the editorial staff would be to lose a strength, and not a liability, of the site. Critically, such an appreciation of individual editorial styles is fundamentally connected to a consciousness of a diverse range of tastes and interests among the site’s readership. As Jeff Bates explains:

One of the reasons that Slash [the code on which Slashdot operates] succeeded was that we got other authors and we diversified our knowledge base... Slashdot

is built around different people who have different interests. Because the editors have different interests, it means that we have different stories on the main page, and thus, appeal to different people. (personal communication, November 13, 2001)

Elaborating on the advantage that maintaining editorial practices operating a diverse range of tastes and styles, Sims adds:

You do get a better variety [on Slashdot] I think because each person tends to advocate for things that they are interested in and we all have different inclinations... One of the advantages is that you really don't have the single [editorial] voice speaking... That can be sort of limiting, where one person can get tired of it. (personal communication, December 7, 2001)

And indeed, it is precisely the site's resistance to standardizing content and its diversification of news related to technology that users credit for its ability to address and attract the interests of a broad, heterogeneous readership. As site user Mark <sup>ii</sup>, a 24-year-old technician in Raleigh, North Carolina who has been reading Slashdot since 1998, describes it:

I really like the technical stuff – the hardware and software stories, the Ask Slashdot section, and [the] Your Rights Online [section]. But some people like reading about anime, which I don't think is quite as interesting, but it's on there. I'm guessing that it's more appealing to a wider audience now. Because the stories that are posted are more diverse and because a wider audience is submitting stories... The audience can grow because it's not just a small

spectrum of stories that are being posted. (personal communication, November 18, 2001)

*Submissions Bin: Negotiating User Interests*

It's significant that the anticipation of a critical and discriminating user base whose tolerance for predictable editorial content would presumably be low, was invoked as a driving factor in the site's maintenance of a diverse range of editorial voices and content. For such an emphasis on audience interests in the shaping of editorial practices operates in explicit distinction to traditional modes of news production, where the influence of audiences are mitigated in the interest of satisfying the demands of managing editors. Indeed, editors frequently point to users as a key factor, and often the key factor, aside from personal judgment, that is used when working in their editorial capacity for the site. Conscious of the crucial role that users play as central producers of site content through both story submissions and forum discussion, Slashdot's editorial practices necessarily operates through a negotiation of user and editorial interests and expectations. In affording users the capacity to shape content on the site's main page, and demonstrating the incorporation of user feedback in the shaping of editorial practices, then, the submissions bin further exhibits itself as a key feature through which a heterarchical distribution of authority manifests.

Reliant on a shifting collective of users to supply story submissions, the site's editorial style and content can vary dramatically from day to day. According to Slashdot editor Michael Sims, "On one day, if there's a lot of news and a lot of reader submissions we end up looking like CNN. And on some days we may get fewer submissions and end up posting a lot of old stuff. It really depends on what readers submit." (personal communication, December 7, 2001)

Among the modifications in editorial practice that Slashdot editors made as its user base continued to expand was to increase their reliance on user submissions for stories that would be posted to the site. While in its early beginnings the site had originally displayed more author-generated than user-generated content, Slashdot editor Jeff Bates recalls when the balance between the two began to shift:

Basically after about six months to a year ago. At that point ...because there were so many more [users], they were just faster at finding these stories and submitting them. So I said I'm not going to go out and waste my time trying to find stuff when they're going to be faster than me... and when several thousand people see more web pages than five people. (personal communication, November 13, 2001)

Editors also reveal that their own day-to-day treatment of submissions bin entries have been shaped by user feedback. A common practice editors report to having developed is the posting of a story to the site that doesn't meet their personal standards or preferences, but that they anticipated would be appreciated by other readers. According to Lord:

There are times that I post things that I'm less interested in. Like I'm not terribly interested in the AiBO robots, but there are some people who do find those things fairly interesting ... When I do post something that I only have a mild interest in, it's usually because I know that there have been some active and wild discussions on that topic before, and that I necessarily want to continue those discussions. (personal communication, December 9, 2001)

Sims adds that, "Almost all the stories we post come from readers' submissions. If people post one thing over and over again – even if it annoys us that we're getting it over and over again, we may post it to the site." (personal communication, December 7, 2001) With user feedback visibly, and often unavoidably, manifested on the site through entries in either discussion forums or the submissions bin, editors develop a sense of obligation to address and respond to audience interests despite their own personal judgement. Rather than imposing a traditional separation between editorial interests and those of audiences, editorial practices on Slashdot are shaped through a continual negotiation of editor and user interests that may often privilege the preferences of audiences over those of editors.

It is not strictly an altruistic impulse, however, that singularly drives the arbitration between user and editorial interests. Indeed, one at least considerable motivation for the phenomena seems to be editors' consciousness of their dependence on users for the generation of story submissions, and for in that sense, sustaining their activities. Such a cognizance is expressed by Lord, who describes his responsibilities as an editor with the following:

For the most part the chief place that we get news from is reader submissions – so the chief part of news gathering for us is done by our readers. While there is some original content in the book reviews and hardware reviews – only sometimes do we get a chance to do any original reporting. A lot of the things we do really boil down to evaluating posters' submissions... We, for the most part present the news that other people have gathered. (personal communication, December 9, 2001)



Aware that their roles are significantly dependent on an active and engaged user base whose interest must be sustained on the site, editors shape their practices with substantial attention turned to readers' voices.

While editors then, demonstrate a sense of obligation to manifesting widely-expressed user interests in the site, their ability to challenge or expand audience proclivities through their roles also becomes a second, co-existing valued function. According to Sims, one of the central functions for him as an editor is:

...finding the really esoteric stuff, the things that people may not have come across in their own We'll post Microsoft anti-trust stories, because every time something happens on that front, we get flooded with submissions, but I don't necessarily feel good about those. Those are sort of a chore. Anyone who watches any sort of news will see that, so we're not necessarily providing any new information. (personal communication, December 7, 2001)

While recognizing a need to represent user interests, then, editors also express a critical self-consciousness to potentially over-conforming to user demands.

The importance editors assign to users' roles as content producers and the necessary negotiation of user interests through editorial roles redefines the concept of editorial power from one exercised upon a silenced or invisible audiences, to one that is exercised with and through an active readership. Although Malda insists for instance that, "Obviously authors have more power than users," he adds:

Our most powerful ability is to post the stories. We start every discussion. We post the polls. We get the first word in every story. But users outnumber us tens

of thousands to one. We post a paragraph, and then thousands of other paragraphs follow. So our word is the loudest, but we're outworded big time.  
(personal communication, December 13, 2001)

Users' own perception of how their activity on the site influences its content, however, often leads to distinct interpretations of where editorial power resides within the collaborative news network. Mark, for instance, explained the news generation process by emphasizing users' roles, to the extent of mitigating editors' participation, in the process:

The community scouring the web is the primary content source of news. And that there are so many people submitting stories is how you get new and interesting things for nerds. The users are the editors – they are the *main* editors. The 'editors' of the site are like the system editors. They maintain the servers and are the ones who just make the site run. But the users are the editors, the users are the readers, and the users are the moderators.™ (personal communication, November 18, 2001)

While such a perception of editorial responsibilities and power as predominantly being carried by users may drive a substantial user base the site, the mitigation of editors' own roles as agents in the process can be an unexpected and unintended outcome that editors of a collaborative news network must contend with. Editors' roles and practices then, become a site where user feedback is uneasily negotiated, resulting in both productive and at times problematic perceptions of their roles. With a heavy emphasis placed on user contributions, a sort of invisibility may be rendered in editorial influence and contributions to the site. While an influence on editorial processes and practices is something that audiences of mainstream news

must often struggle for, then, it is a recognition of the impact of the execution of their editorial duties that Slashdot's own editors find themselves often fighting for.

*From Objectivity to Openness in News*

Objectivity has often been analyzed by scholars of news as the central criteria for professionalism, and as the primary factor used to evaluate the performance of news workers. Emanating from a "faith in 'facts,' a distrust of 'values,' and a commitment to their segregation," (Schudson, 1978, p. 6) objectivity as a rationalizing agent in the reporting of news has been dated back to the rise of the Associated Press, the first American wire service in the U.S., in the 1840s. According to Schudson and Tuchman (1978), the adoption of objectivity in news was a reporting strategy that allowed the AP to gather news from a broad range of publications with particular political allegiances, and still remain acceptable to the widest possible clientele.

Such a connection between the economic imperatives of the news business and the imposition of objectivity as a professional ideal, of course, is something that other scholars argue has not been lost. Identifying objectivity as the most defining contemporary norm in professional journalism, Soloski characterizes it as "an eminently practical – and apparently highly successful – way of dealing with the complex needs of journalists, news organizations and audiences. Events can be safely presented as a series of facts that require no explanation of their political significance." (1989, p. 214) According to Soloski, the pursuit of objectivity as a professional goal is a central means of not only guaranteeing "rational" and factual news content, but is a means of controlling and rationalizing the production routines of news workers themselves, and thereby securing their own profits: "By reporting the news objectively, reader loyalty to a newspaper is not a function of the ideology of that newspaper. It is based on the

thoroughness of the news coverage, subscription costs, delivery services or some other tangible factor that a news paper can control.” (p. 214)

More than being an economic necessity, however, objectivity has been argued to be regarded among scholar and professionals of news alike as a critical feature of responsible, ethical reporting: “Objectivity lies not in the quality of the product, but in the mode of the performance. Objectivity is a value and therefore requires an ethical commitment to the perform.” (Roscho, 1975, p. 55) So much has the idea of objectivity been idealized as the standard of professional practice that among the most esteemed new rooms, such as the BBC, editors decree, “Every time a [news] man reveals a personal commitment he reduces his professional usefulness, until the moment arrives when he may be said to have used up all this credit-worthiness.” (Schlesinger, 1978, p. 181)

In contrast to professional journalism, it is not an idealization of objectivity but a persistent questioning and interrogation of its elevated role in reporting that shapes editorial practices on Slashdot. As Lord says:

I think that a lot of things that are considered objective are simply codified as that, but in the end it's someone who is making a decision. You can have a thick rule book on whether to post something to Slashdot and you really still would have subjective posting. But I think all reporting is subjective and I don't think that's a bad thing. (personal communication, December 9, 2001)

Skeptical of both the possibility of producing objective journalism and of the value of promoting objectivity as an ideal by which to define news, Lord expresses Slashdot's editors' move toward an unmasking of subjectivity in the act of reporting. Characterizing editorial practices on Slashdot as adhering to a practice of maintaining an openness of personal biases, Lord adds

that to attempt to erase or eradicate the subjectivity in editing would be to violate in fact, users' confidence in the site:

I think a big aspect of [building trust among readers] is that we try to be honest... We tend to say here's a pointer to a news site that says something. And we generally make our biases clear, and it's sometimes in just a sly comment that "this is nonsense" or "what are they saying here?". If we weren't being honest we'd be seen as stupid. (personal communication, December 9, 2001)

Indeed, it is an editorial practice on Slashdot defined in part by a rejection of traditional journalistic claims for objectivity, and an exposition of individual biases and preferences in editing, that builds a firm sense of trust among many of its users. Praising the site for its commitment to such an openness, Sam<sup>4</sup>, a 29-year old graduate student in instructional technology who has been reading Slashdot for over two years, for instance says:

It's such a great model of what objectivity is. It's people saying, yeah, this is my interest, this is what I do – you take it at face value and then you get a variety of opinions through which you can form one your self. I think it's telling that so many of us are so comfortable with the idea that that is what objective is. (personal communication, November 17, 2001)

Elaborating that claims for objectivity by traditional news companies seem disingenuous to him, Sam adds, "I think enough of us have had enough experiences with different news media to know that it's not necessarily reporters that know what's going on. That there's corporate interests that are driven towards certain things and questions and certainly are concerned with

ratings." Critically, users like Sam interpret Slashdot's commitment to editorial transparency as operating on a presumption of an informed user base, whose members would be capable of formulating their own positions, opinions and interpretations of the news they read.

Further, Slashdot's rejection of any claim for objectivity allows many readers to excuse its editors when editorial errors and misposts do occur. Although Bryant<sup>v</sup>, a 21-year-old online help desk technician and reader of the site since 1998, observes that, "Slashdot has compromised its credibility from time to time – through slow updates when they realize they've made an error, [or] ... through double posting of the same article," he adds:

But in all honesty, these things happen. These things are kind of inherent of the news world... even places like CNN are not immune to such follies. It just reaffirms my position that this site has a personal touch to it - people make mistakes and such mistakes like these remind people that this site is ran by the community instead of a major new corporation - which is one of the aspects that I enjoy about Slashdot. So, I would rather it have its errors and mishaps than not.

(personal communication, March 5, 2002)

Contrasting the difference in expectations that he approaches Slashdot and traditional with, Edward<sup>vi</sup>, a 24-year-old computer science graduate student who has been reading Slashdot since 1998, adds:

Well, let's put it this way: Slashdot makes no claim that it's objective. So I go in knowing that what I'm reading is just something that some dude posted on the web. Where as in *The Washington Post* you have these people who are professional journalists and their claim is that this is a good, well rounded story.

I've been burned enough times on that that I don't really trust that anymore.

(personal communication, November 28, 2001)

Readers like Stephen<sup>vii</sup>, a 28-year-old graduate student in physics at a university in New York state, say that the site's disavowal of objectivity allows it to take more risks with editorial content that lends itself to the creation of more original news content: "They've published hoaxes, but I think that's great! You have to make one or two mistakes to be on the edge – if you never screw up it means you're not going anything on the edge." (personal communication, March 7, 2002)

Trust among users in Slashdot's collaborative news network, then, is cultivated, not so much through an objectivity, or even truthfulness in what's reported, but through an openness and truthfulness to readers of the subjective filters through which editors filter the news.

Sharing, in large part, Slashdot editors' expressed skepticism in the professed objectivity of mainstream news, and often dubious that such an idealization of objectivity strengthens the reporting of news, site readers stress a preference instead for a transparency in the personalities, interests and values behind news' construction – information that would be required to be excluded according to the norms of objective professional journalism.

### *Building Accountability among Producers*

The diversity of editorial perspectives and the extended ability to sustain the interests of a broad user base, that a heterarchic production model affords Slashdot's collaborative news network, however, does not necessarily come without a risk of complications and social costs. (Stark, 1996, forthcoming) Pointing to the erosion of accountability that heterarchies may effect through an *over-tolerance* for multiple logics Stark writes:

The problem with the peculiarly diversified portfolios of the new heterarchies is that actors can all too easily and almost imperceptibly switch among the various positions of they hold simultaneously in the coexisting moral economies. To be accountable according to many different principles becomes a mean to be accountable to none. (forthcoming, p. 37)

Such a disintegration of the traditional boundaries typically imposed through a hierarchical structure, in other words, may lead to a sort of organizational schizophrenia and confusion where actors are no longer liable for their actions.

An account of editorial practices by Slashdot editors themselves, however, seems to suggest that while an obligation to multiple and potentially oppositional constituencies may in fact manifest under a collaborative news network, it is in fact a heightened sense of accountability to a broadened and enlarged audience that is fostered. Sims for instance, describes that while the minimization of hierarchy among Slashdot's editors affords him a flexibility and freedom in the execution of his editorial responsibilities, the potential of the site's readers to immediately respond to sloppy editing in either discussion forums or through direct email enacts a considerable pressure on editors: "It's not like a news paper process where everything goes by a head editor – each of the authors has the authority to post things. And if we screw up, we may be in trouble, but we have enough rope to hang ourselves. Because our users are extremely critical." (personal communication, December 7, 2001) To Sims, the critical eyes of several thousand users whose trust must be additionally maintained to sustain their activity as content producers on the site, enforces as much quality control on editorial performance as the watchful eyes of fellow editors.

Perhaps more revealing is the degree to which individual editors internalize a dedication to their editorial responsibilities, despite the absence of a hierarchical chain of command among



fellow editors. As Sims explains: “For the editors, [maintaining credibility] is definitely a personal integrity thing. If I write something that turns out to be wrong I want to correct it as soon as possible because I wouldn’t want people saying that I said something kind of wrong. And I don’t want it on my permanent record.” (personal communication, December 7, 2001) Significantly, Sims points to critical feedback he would potentially receive from a user base, rather than that the might receive from other editors, as the crucial factor in maintaining editorial credibility. While a certain degree of loss of accountability may risk manifesting among Slashdot’s editorial team, the confined number of editors and the enhanced ability of users to examine and critique editorial practices serve as valuable protections against a complete dissolution of editorial responsibility and credibility.

If a loss of accountability might threaten to manifest to a debilitating extent in Slashdot’s heterarchical organizational model, it would arguably be more prone to occur among the site’s users, whose contributions are incorporated into the site’s content, rather than among the staff editors themselves. A ready supply of irresponsible participation has already demonstrated to have been rendered among users, whose sheer volume in mass and potential online anonymity serve as a dual defense from having destructive behaviors perceived and intercepted. In its most banal form, such behavior is expressed in the significant number of trolling comments and flame bait that are deposited Slashdot’s discussion forums, and which by now have become a familiar presence on many large online forums.<sup>viii</sup> In its most serious form, however, it may manifest as attempts to disrupt server access or to vandalize Slashdot’s pages. While the moderation and filtration system offers one means to easily and quickly filter out irresponsible comments and diffuse the impact of irresponsible participants, and the editorial screening of user story submissions acts as a filter for poorly written submissions, it remains a challenge for editors and coders of Slashdot to continually shape a system that is at once flexible and open

enough to afford a variety of user freedoms while adequately anticipating more irresponsible user actions and rendering them ineffective.

While a departure from traditional hierarchical models of news production that maintain a concentration of editorial control and authority may seem to pose significant challenges to Slashdot's ability to cultivate users' confidence in the site and the news it distributes, the responses of some of its readers indicate that trust and confidence may be fostered through a diversification and distribution of editorial control. Readers may perhaps even develop a greater degree of trust through such alternative models for news production than they would through more traditional models. Sam, for instance, explains:

I do tend to trust them. And then having an open process, I trust that to a somewhat larger degree, or certainly at least as much as I do the major media conglomerates... I guess Slashdot feels to me more like a better model of what objectivity is, because you just have all these people bringing whatever they have to bring to bear on a conversation and letting the pieces fall where they may.

(personal communication, November 17, 2001)

For Edward, it is precisely a reflexivity afforded by a heterarchic distribution of power that is missing in mainstream news publications that engenders his confidence in Slashdot:

I feel like if I thought something was wrong I could just toss off an email and it would show up right by the story [I wanted corrected] ... So you don't lose anything and you gain this feedback. That happens often enough that I trust that if something were just inaccurate, enough people would read it and some thing would show up... [But] you can't disagree with a newspaper article. The only

thing you could do is write a letter to the editor and hope they publish it. (personal communication, November 28, 2001)

Such expressions of confidence and trust in Slashdot from users provide striking evidence that it is through a heterarchical fostering of multiple belief systems, a tolerance for the complexity their co-existence yields, and a resistance to the enforcement of conformity that traditional hierarchical organizational models would prescribe, that is to credit for the site's ability to build loyalty among users and to expand its user base. It is through, in other words, a diversification and distribution of editorial control, rather than from its centralization and standardization, that fosters users' trust in the site. Such an openness to diverse opinions, processes and styles manifests not merely on a technical level, through various features of the code and design configurations of the site, but at the personal, individual level of editors who express a consistent concern for maintaining a user-centered system flexible enough to be approached in a variety of ways.

If the enforcement of hierarchy in traditional news rooms seeks to rationalize news production, minimizing complicating factors and producing an ideological cohesion and suppression of personal style among its staff, a heterarchical structure to news production under Slashdot's collaborative news network aims instead to sustain a diversity of individual styles of practice and minimizes organizational conformity. While the organizational culture of mainstream news media has been argued to constrain news production process by centralizing control within a limited party of editors and managers, and enforcing professional standards and a commonality of work place practices, the organizational structure of Slashdot's editorial team fosters instead a pointed multiplicity of editorial styles and voices. Similarly, while decision making in news production has been argued to be determined through editorial routines and

professional hierarchies to the exclusion of audience input, editorial decision making in Slashdot's collaborative news network occurs instead with an explicit consideration of audience concerns, interests and feedback. Rather than operating through routinized practices, to facilitate efficiency, rationality, and objectivity, Slashdot's heterarchical model works instead to promote a diverse body of production styles and content that appreciates the subjectivity of interpretation, and a transparency of those frames of interpretation that questions professional claims for objectivity.

While a heterarchic dispersion of authority and inclusion of diverse interests may yield a heightened sense of obligation among editors of to their roles and responsibilities, and may enhance users' trust in the site of news, it also, unsurprisingly, yields a number of complications that editors – and indeed other users as well – must respond to. Introducing a new balance of power between audiences and editors, Slashdot's heterarchic model of news production allows users to assign primary credit for site content to a distributed body of fellow users – to the potential risk of diminishing the roles played by the site's small team of editors. User Mark for instance, describes:

[The editors'] power [on Slashdot] is more mediated, I think, in that they kind of provide the paper, analogous to a regular newspaper – and everyone else puts the stories on it. People submit the stories ... and then the 'editors' decide what to put on the site, and after that it's kind of out of their hands. Every article is always open... [so] I think the editors have a little less power than an editor for a traditional newspaper because they don't control the content, they just post the stories – everything else is user driven. (personal communication, November 18, 2001)

While such an acute perception of users' contribution in shaping site content may be a driving factor for many users' visitations to the site, it can also operate to the detriment of a recognition of editors' own roles in the production of content. Slashdot's heterarchic model of news production, then, is one in which the balance of power between users and editors undergoes a continual process of negotiation, creating a web of relationships between users and editors and new forms of individual and collective user action that range from the productive to the uneasy and unexpected, as will be further explored in the following chapter.

NOTES:

Boczkowski, P. (2000). Distributed construction: Changing regimes of information creation in online newspapers. Paper presented at the Annual Meeting of the International Communication Association, Acapulco, Mexico, June.

Boczkowski, P. (2001). *Affording flexibility: Transforming information practices in online newspapers*. Doctoral dissertation, Cornell University, Ithaca, NY.

Breed, W. (1955). Social control in the newsroom: A functional analysis. *Social Forces*, 33, 4, 326-335.

Gans, H. (1979). *Deciding what's news: A study of CBS Evening News, NBC Nightly News, Newsweek, and Time*. New York: Pantheon Books.

Grabher, G. (2001). Ecologies of creativity: The village, the group, and the heterarchic organisation of the British advertising industry." *Environment & Planning A*, 33, 351-374.

Martin, S. & Hansen, K. (1998). *Newspapers of record in a digital age: From hot type to hot link*. Westport, CT: Praeger.

Powell, W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior*, 12, 295-336.

Roshco, B. (1975). *Newsmaking*. Chicago: University of Chicago Press.

Schlesinger, P. (1978). *Putting 'reality' together: BBC news*. London: Methuen.

Schudson, M. (1978). *Discovering the news: A social history of American newspapers*. New York, NY: Basic Books, Inc., Publishers.

Shoemaker, P. & Reese, R. (1991). *Mediating the message: Theories on influences on mass media content*. New York, NY: Longman.

Sigelman, L. (1973). Reporting the news: An organizational analysis of news reporting. American Journal of Sociology, 79, (1), 132-151.

Slashdot.org. (2000, October 2). Welcome to Slashdot. Now go home. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=00/10/02/1753214&mode=thread>

Soloski, J. (1989). News reporting and professionalism: Some constraints on the reporting of news. Media, Culture and Society, 11, 207-228.

Stark, D. (1996). Recombinant property in East European capitalism. American Journal of Sociology, 101, 993-1027.

Stark, D. (forthcoming). Ambiguous assets for uncertain environments: Heterarchy in postsocialist firms. In P. DiMaggio, W. Powell, D. Stark, & D.E. Westney (Eds.), The 21<sup>st</sup> century firm. Princeton, NJ: Princeton University Press.

Stark, D. & Girard, M. (forthcoming). Distributing Intelligence and Organizing Diversity in New Media Projects. Environment and Planning A.

Tuchman, G. (1978). Making news: A study in the construction of reality. New York: The Free Press.

#### ENDNOTES:

---

<sup>i</sup> Slashdot was purchased by Andover News, the owner of several open source-related web sites, less than a year earlier. The buy out was the subject of much discussion on the site among users, who wondered whether Slashdot might compromise its editorial credibility in turning into a corporate-owned site, from formerly being an independent one. The term “keiretsu” is derived from the Japanese, and is used to refer to a network of businesses that own stakes in one another as a means of mutual security. Sims used the term here symbolically, as a reference to user criticisms that Slashdot would turn into a channel for Andover’s interests.

<sup>ii</sup> The subject’s real name was changed for the purposes of this paper.

<sup>iii</sup> Phone interview with the author on Nov. 18<sup>th</sup>, 2001.

<sup>iv</sup> The subject’s real name was changed for the purposes of this paper.

<sup>v</sup> The subject’s real name was changed for the purposes of this paper.

<sup>vi</sup> The subject’s real name was changed for the purposes of this paper.

<sup>vii</sup> The subject’s real name was changed for the purposes of this paper.

<sup>viii</sup> That users can also post comments anonymously also affords an additional layer of protection from personal accountability.

Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org.  
Chapter 4: Community, Contest and Collective Action on the Network

Shortly after Jane's Intelligence Review's controversial decision to cancel the publication of an article on cyberterrorism based on criticism from Slashdot readers, and to replace it with a new article incorporating Slashdot reader feedback, a new term entered the lexicon of professional journalists: open source journalism. Coined by professional journalists themselves who had appropriated the term from the user-centered open source software movement (a topic, not coincidentally, of popular discussion among Slashdot users), for them, "open source journalism" captured precisely the type of process enacted on Slashdot that centered on users' routine dissection and critique of news coverage. Such critique not only modified an article's coverage within the site, but could also and more significantly, in their eyes, provoke revised coverage of the topic in other publications – as the Jane's case had most notably exemplified.

Explaining the designation in a 1999 article for the Freedom Forum, Jin Moon wrote: "The term 'open-source journalism' stems from software techniques that make software coding openly available so that experts and regular users will find and correct glitches. Open-source journalism, made possible by online communities, applies those same principles to news stories — making them available for scrutiny and corrections" by its reading audience. (1999, October 10) Stressing the improvements and value readers have been able to quickly add to news distributed under Slashdot's open source journalistic model, Salon.com's Andrew Leonard wrote that, "just as open source programmers would critique a beta release of software filled with bugs, the Slashdot readers [can pan] the first release of [a] journalistic offering – and the upgrade, apparently, will be quick to follow." (1999, October 8) Emphasized in such characterizations of Slashdot as a form of "open source" journalism was the ability of users to

contribute to and refine information conveyed as news, and generate a new news product – both on and off the site – through such feedback.

Just as critical, however, was that implicit in the evocation of open source journalism was a characterization of official news publications and broadcasts as imperfect sources of information that could or should be subject to continual augmentation and revision by their readers. Providing a name to the concept of open source journalism then, gave form and language to a move away from insurances on both the authority and veracity of traditional journalism, and on the supposed necessary separation between news workers and readers in the interest of more credible news making. Moreover, providing a name to a phenomena of “open source journalism,” provided an opportunity for its proponents already working in the news business to demonstrate that they were among the primary challengers of their own profession's preserved practices of news making.

This chapter is an attempt to account for some of the new forms of collective action that are cultivated on and emerge from the site through the convergence of editorial and audience practices on the collaborative news network. As demonstrated by news professionals' attempt to assign a name to and categorize the phenomena of Slashdot before it had even assigned one for itself, collaborative news networks as contemporary forms of collective action, demonstrate themselves to operate like “[signs]... [that] ‘speak before’ they announce what is taking shape even before its direction and content has become clear... They announce the commencement of change; not, however, a change in the distant future but one that is already a presence.” (Melucci, 1996, p. 1) Not merely an outcome or reaction to a rupture in society, contemporary forms of collective action, according to social movement theorist Alberto Melucci, frequently manifest without having a specifically expressed or asserted purpose. Indeed, often fragmented, disordered and lacking a unity of goals, movements must be considered as “systems of action, complex networks among the different levels and meanings of social action.” (Melucci, p. 8)



Constituted by a composite of diverse and at times contradictory elements, contemporary social movements may in fact resist collapsing the plurality of their constituents under a clear and confined body of goals.

Indeed, practicing news professionals were not the only actors to attempt to assign a name to the phenomena of collaborative news network as proponents of the concept of an “open source journalism”. Bart Preecs, a former journalist and the founder of [MakeYourOwnMedia.org](http://MakeYourOwnMedia.org), issued a more explicit criticism of mainstream media in advocating open source journalism. In an essay entitled “Open Source Journalism: An Alternative Strategy for Using the Internet to Empower Citizens and Strengthen Democracy,” (2000) Preecs heralds open source journalism as a means of curing traditional news media’s tendency to “[dumb] down” their audiences. Open source news, instead, he argues, would revitalize an active, civic-oriented citizenship:

We could create an alternative to advertiser- filtered, controversy-driven, celebrity-obsessed, insider-based professional journalism. Open source journalism would be amateur journalism, journalism produced by citizens, scholars, community activists and other troublemakers just because we love the idea of creating, organizing or deploying the information that could save our planet and our souls. (2000)

Significantly, unlike professional journalists who were proponents of the concept of an open source journalism, Preecs’ notion of its practice was one operating in direct opposition to established news media. For Preecs, Slashdot and other manifestations of open source journalism are not merely ameliorative agents acting on particular news articles, or that can function as tools for professional journalists, but are agents that react against an entire

institution of news that they read as having failed to meet its public duties – so much so that it had allegedly compromised the health of the planet as well as that of our very souls.

Despite professional and amateur journalists' attraction to and adoption of the concept of open source journalism, Slashdot's editors themselves disavow the descriptive term. Reacting to the name "open source journalism," Jeff Bates said the site's editors "deliberately will not use terms like that because it keeps the informality to Slashdot. We use the term 'community' and we talk about the readers, but we don't really talk about it in any more of a formal fashion."

(personal communication, November 13, 2001) Further critiquing applications of the term "open source" beyond the realm of software code, Bates quipped:

Open source anything except for code irritates me... Because it's essentially assigning a different meaning to term open source. Open source is about code. To open source journalism, are you in terms of GPL (General Public License) or BSD (Berkeley Standard Distribution) or an Apache license<sup>1</sup> or an artistic license? The term open source journalism is very generalistic and it doesn't get down to what it is." (personal communication, November 13, 2001)

But the refusal of the term open source journalism seems to be based on more than simply a critique of the technical differences between the properties of code and its treatment by a body of programmers and those of news and its treatment by a body of readers. For neither have there been attempts by Slashdot's editors to explicitly define its identity or form under alternative terminology. A visit to the site's "about" page of Slashdot simply states that:

In the beginning there was no Slashdot. Bored and confused geeks would scribble 'First Post' in the sand... and there wasn't a place to get nerd oriented

news. Then in September of 97 Rob 'CmdrTaco' Malda changed all that. With the help of Jeff 'Hemos' Bates and others, Slashdot has stumbled forward with the simple mission to provide 'News for Nerds. Stuff that Matters'. (2002)

Remarkably absent in the self-description was any indication or explanation that Slashdot had done or accomplished anything more than simply provide "news" for a previously (and unfortunately) under-served audience of nerds. Implicit, it seems, in Slashdot's refusal to profess a name for itself is a parallel disavowal of the implied agendas attached to such demarcations. If "open source journalism" offered a tool to improve the quality of news articles for some, or for others, signaled a more radical means to reform an entire institution of news, both were disclaimed by the site's insistence on namelessness.

Given the opportunity in fact to explain both the what's and why's behind Slashdot's success, Malda flatly writes in the site's FAQ section, "Slashdot is successful for the same reason anything else is. We provided something that was needed before anyone else did, and we worked (and continue to work) our butts off to make it as good as it could be." (2000, October 28) Curiously, what the site's editors offer instead of any more explicit delineation of what precisely then, Slashdot is or even what it had managed to create, was a seemingly ordinary, less than complete self-portrait. Rather than highlight any unique functions or features of Slashdot that distinguish it from other news sites, mainstream or otherwise, the editors' own description of it enacts an explicitly normalizing effect, where Slashdot, in Malda's words after all, is just "like anything else is."

Such a move to render Slashdot as simply another ordinary expression of online news, however, belies the prominence assigned to it by working journalists' own attempts to designate it as something other than news as usual through the introduction of a term like "open source journalism." Moreover, it seems to contradict the expression of other signs that signal Slashdot,

in all its namelessness, is indeed something other than what its editors profess it not-to-be. For the attention that has been turned to the site, both in terms of its rapid generation of a substantial user base and in terms of the debate it has sparked among working journalists, is testimony to the fact that the site is not in fact, simply operating by familiar rules. What, other than something relatively atypical, after all, could provoke working journalists themselves to collectively articulate and recognize a term that challenged at least the practices, and for some, the very foundations, of their profession?

Indeed, Slashdot editors' own insistence on the site's ordinariness is less trivial than it may at first seem. For just as "open source journalism" proponents' utilization of the term and attempt to capture the significance of practices that occur within Slashdot operate with degrees of purpose, so too does Slashdot's evasion of a name, operate with its own purpose. Without a name, the site's goals are afforded the freedom to remain emergent, rather than constrained by explicit intent. Without a name, the multiple unexpressed or still undefined potentials of the site may remain consistent with operations of the site that are themselves under continual processes of transformation and reshaping. Without a name, the user and editor practices on the site appear as ordinary conventions rather than exceptional processes. And without a name, the implications of such practices could appear contained, controlled and benign rather than destabilizing, transformative or disordering.

Expressions of collectivity, however, take form from and on Slashdot despite the fact that the direction and content of such emergent expressions remain unnamed and undetermined. Like the articulation of "open source journalism" by practicing journalists themselves, such forms of collective action occur despite, and often because of, Slashdot's resistance to its own naming. Unpredictable, uncontained, and disordered, forms of collective action on Slashdot's collaborative news network are reliant upon the activity of an anonymous group of participants, who may or may not immediately recognize the collectively, direction or impact of their actions –

and who as significantly, may or may not express an alliance with the site. It is in this realm of what will not or has not yet been defined, explained and predicted that the potentialities of Slashdot's collaborative news network, and indeed, what ultimately distinguishes its functions from that of traditional news production, make themselves evident. Such potentialities take impact in multiple forms of collective action that exhibit both allegiances to and defiances of the network itself: through individual users' practice of activist tactics that reflect and express shared values with other participants on Slashdot's network, in affecting the access of digital information beyond the network, through movements to break away from Slashdot's network to form a distinct, often contestatory one, and through attempts by network participants to display and exhibit their improper usage of and actions on it.

#### *Approaching News Production as Collective Action*

Defining the exercise of power in contemporary society as dependent on the circulation of information, Melucci readily gestures toward news production as a central site for the potential abuse of power. Specifying "exploitation as a form of dependent participation in the information flow, as the deprivation of control over the construction of meaning," Melucci writes that:

...the true exploitation is not the deprivation of information... [but] exclusion from the power of naming. It is the unreflected reception of the names which frame human experiences, consumption and interpersonal relationships: the abiding by the rules implied in these names. (p. 182)

It is not, in other words, that audiences might be excluded from access to information itself, but that they are excluded from the ability to independently generate meaning and attach their own “names” to news. As such, they are left instead dependent on the interpretive lenses provided by traditional news’ producers whose unspoken modes of operation justify the reproduction of their own practices. If exploitation then, is constituted by the uncurtailed and even unrecognized exclusion from the right to name and assign meaning to information, then subversion of such dominance would entail, according to Melucci, the “reversal,” and the revelation, of “the hidden rules upon which [dominant codes] are constructed.” (p. 182)

It is then, precisely through an incorporation of readers as the central producers of its news content and through its emphasis of user-authored analysis or news coverage that collaborative news networks can be argued to transform the act of news production into a form of collective action. Despite never having articulated a position in opposition to mainstream news production (and in fact, in rejecting identifications that would have positioned it within such an agenda), in simply introducing new conditions by which news could be produced and in sustaining an alternative system for news production that centered on user-generated content, collaborative news networks challenge the rules by which news had conventionally been constructed.

Significantly, however, Slashdot presents a statement not only for the ability of audiences and users to act as core participants in the news production process, but also for a recognition of the subjectivity in the act of naming and assigning significance and meaning to information as news. If news production has traditionally operated around an idealization of objectivity, factuality and neutrality in reporting, user and editorial practices on Slashdot reveal the possibilities of sustaining a model of news production explicitly oriented toward an exposition of the personal standpoint and individual values of participants. Pointing precisely to the need to uncover the values and interests that determine news media agendas, Melucci

writes, "The problem, instead of mis-reporting reality, concerns the greater or lesser visibility of codes, the decision-making processes, and the construction of languages implicated in the production of that reality." (p. 226) The challenge embodied in Slashdot's collaborative news network, then, is one posed not only to create more spaces that afford audiences greater access and agency over a process of naming, but that also recognize the subjectivity inherent in the act of naming.

But to capture, identify, and therefore encapsulate the means in which Slashdot's social network constitutes a collective action is no easy task. Converging only virtually through the site, and participating for the better part independently as lone actors stationed before individual computer screens and scattered across innumerable homes, offices and labs, Slashdot's participants seem to resemble less a collective body than a loose constellation of individuals with shared interests. For Melucci, however, such an absence of physical cohesion is characteristic of the diffuse, fractured structure that he argues typically characterize contemporary forms of collective action:

Movements in complex societies are hidden networks of groups, meeting points and circuits of solidarity which differ dramatically from the image of the politically organized actor... Above all... one notes the segmented, reticular, and multi-faceted structure of movements. This is a hidden, or more correctly, latent structure; individual cells operate on their own entirely independently of the rest of the movement, although they maintain links to it through the circulation of information... the solidarity is cultural in character and is located in the terrain of symbolic production of everyday life." (p. 116)

Contemporary forms of collective action, Melucci argues then, must be recognized less for their ability to generate a unified, organized mass of followers, than for their ability to generate through individual actor participants' routine and daily practices, a new "terrain of symbolic production."

For Melucci, it is the composite of individual collective actors' distinct and diffuse modes of participation that manifests in new social movements, including those mobilizing youth, women's, ethno-nationalist and environmentalist politics. Describing collective action among youth as differentiated and manifesting in a broad range of forms, from "ritualized inaction to professionalized action," (p. 132) and from direct, sustained challenges to a fluctuation between various cultural and political objectives, Melucci argues for a recognition of the heterogeneity of condition and action experienced and deployed by youth activists. Such a pointed diversification gives a significantly distinct mode of expression to contemporary youth movements, which no longer organize as the unified bodies of dissent displayed in the West of the 60s and 70s, but which nonetheless still consistently address the "problems of choice, uncertainty and risk" (p. 128) of particular societies. Mobilization is not founded on totalizing principles or values, which would diminish the expression of individual identities, but is instead "framed by the conjunction of global concerns and the ever narrower horizons close to individual everyday experience." (p. 132) Such a dynamic mode of political expression and cultural critique enables youth activists to rapidly identify and respond to new opportunities or multiplying forms of domination that impact their experiences, allowing the passage of the movement from one stage to another, while still risking the discontinuity of action from the frailty of interpersonal ties among individual actors.

That the layering of editorial and user actions on Slashdot can produce a challenge to traditional news production, then, does not necessarily also suggest that an organized platform or front around a project for the transformation of news production beyond the site has been developed and adopted. Slashdot's editors' characterization of the site and its achievements is



in fact notable for its explicit insistence on its ordinariness. And while several users interviewed did characterize Slashdot's model of news production as "revolutionary," others refrained from such descriptions, focusing their characterizations of the site on the imperfections of its functionalities. Indeed, user interviews were more notable for demonstrating the diversity in personal interpretations of and relationships to Slashdot that users formed, than for revealing any organized, consistent intent driving patterns of usage. Arguing against an assumed uniformity of identity or conformity of action among members of a collective movement, Melucci instead seeks to highlight the construction of unity through difference, conflict, and tensions between various actors present within collective movements. How such segmented, individuated modes of participation in a collective action as manifest on Slashdot's collaborative news network, is the subject of inquiry in the following sections.

### *Representing Tactics of Collaborative News Networks*

That it is the sum, rather than the distinct units of individual participation, that Melucci emphasizes in identifying and characterizing contemporary collective movements is significant. For such an approach to the study of collective action in part emerges from the tensions in representing the inherent fragmentation and plurality of individual actions that compose social movements. Like Melucci, de Certeau similarly recognized the difficulty in isolating and encapsulating the distinct uses of challenging practices in the lives of everyday actors. (de Certeau, 1984) Calling such modes of use "tactics," de Certeau wrote that they may be characterized by their:

...trac[ing of] 'indeterminate trajectories' that are apparently meaningless, since they do not cohere with constructed, written and prefabricated space through

which they move. They are sentences that remain unpredictable within the space ordered by the organizing techniques of the system...They circulate, come and go, overflow and drift over an imposed terrain like the snowy waves of the sea slipping in among the rocks and defiles of an established order. (de Certeau, p. 34)

Transient, fleeting, unpredictable and seemingly incoherent, tactics' own lack of order and often recognizability renders them both difficult to identify and explain, particularly by researchers who would intend to examine them. Such a mode of movement allows tactics to frequently elude perception (even from the "trained" eye of the scholar), operating under the radar or under the guise of the ordinary, and more importantly for their own sustainability, escape capture.

More than simply being difficult to encapsulate because of their transience, however, de Certeau reminds us that the tactics of collective movements may resist description and representation precisely because of the ways in which modes of analysis and explanation have operated. Although the strength of collective actors' tactics "lies in their ability to divide," he specifies that "this analytical ability eliminates the possibility of representing the tactical trajectories which, according to their own criteria, select fragments taken from the vast ensembles of production in order to compose new stories with them." (p. 34) Overly occupied with classification and categorization, statistically-based studies in particular of tactics can "grasp only the material used by consumer practices – a material which is obviously that imposed on everyone by production – and not the formally proper to these practices, their surreptitious and guileful 'movement' that is, the very activity of 'making do.'" (p. 34) Critiquing analysts then for applying a limiting lens for the study of cultural practices, de Certeau concludes that research has amounted to a quantification of "what is used" (p. 34) rather than having moved toward a representation of actors' "ways of using" tactics. (p. 34)

Such a lens of classificatory analysis, while insufficient for a consideration of the tactics practiced on and through Slashdot's collaborative news network, are aptly designed for a study of the application of strategies. Defined by de Certeau as "the calculation (or manipulation) of power relationships that becomes possible as soon as a subject with will and power (a business, an army, a city, a scientific institution) can be isolated," a strategy "postulates a place that can be delimited as its own and service as the base from which relations with an exteriority composed of targets or threats (customers or competitors, enemies, the country surrounding the city, objectives and objects of research, etc.) can be managed." (p. 36) Seeking to order, organize and rationalize space and the relations within it, strategies, in pronounced contrast to tactics, operate through the exercise of power and imposition of control. According to de Certeau, "every 'strategic' rationalization seeks first of all to distinguish its own place, that is, the place of its own power and will, from an 'environment,'" those spaces, in other words, which have not yet been conquered by the strategizing body and that will not conform, or have not yet conformed, to its singular interests. And unlike tactics, whose patterns of motion, structure and purpose may be characterized only by their constant mutability, impermanence, and internal fragmentation, strategies' own explicitly identified goals and organizing principles, and structural cohesion make them ideal objects for study by classificatory lenses. Often purposed with the objective of rationally explaining, quantifying, and ultimately optimizing their subjects of study, classificatory analyses and strategies may be said to function to the mutual benefit of the other.

Indeed, it has been a strategically operating model of news production that has come to determine public understandings of journalism. Characterized by an organizational structure and body of professional values that have been defined in the interest of maintaining internal cohesion, conformity and efficiency, it is through such mechanisms that mainstream news production assesses its own performance and that it is rendered recognizable by. Structurally diffuse and composed of multiple "indeterminate trajectories," however, the tactical modes of

operation on Slashdot's collaborative news network may be characterized only by their common resistance (or inability) to developing a consistent, stabilized body of practices. Functioning with multiple operational logics and principles that often contradict or conflict with one another, it is a composite of these unpredictable, unauthorized modes of participation – rather than a strategic adherence to an imposed conformity – that bespeaks the power and potential of collective action on collaborative news networks. The challenge that remains, then for researchers, is how to analytically track and trace the tactical practices that emerge on Slashdot. For indeed, with no single appointed or designated leaders, no manifestoes of common purpose, and even the evidence of their actions' passings often ephemeral, the very aspects of collective actions on collaborative news networks that render them powerful are the same that render them resistant to examination.

#### *Network Activism as Collective Action*

Stephen<sup>¶</sup>, a 28-year-old physics graduate student in a New York state research university, readily recalls how he had managed to convince his department's director to convert a cluster of computers to a Linux-based operating system:

We had a computer cluster in the physics department that was running an archaic version of Unix... Having read Slashdot, I was incensed that they didn't have any Linux clusters in the physics department. And so I told the director of the department that they should really build one and that I would help to do it. But it was only through reading Slashdot that I would have done that, because through reading Slashdot I realized I wasn't the only person who believed that

Linux was the greatest thing and that I realized that it was the thing that people would be using in the future. (personal communication, March 7, 2002)

Explaining what it was about reading Slashdot's coverage of Linux topics that compelled him to perform, in his own words, "a bit of Linux evangelism," Stephen added, "You realize [through reading Slashdot] that that's what all the technically sophisticated people are using and endorse, and that gives you confidence to tell your colleagues at the university that they should have a Linux cluster too." (personal communication, March 7, 2002)

Enacted as a means to support what he had come to believe, through his participation on Slashdot, was a superiorly performing operating system, and intended to reform what he understood as a misguided and unsound decision by the department he works under, Stephen's episode of Linux evangelism represents a manifestation of network activism generated under Slashdot's model of collaborative news. While lacking the physical presence and cohesion that may characterize other forms of recognized social movements, network activism on Slashdot's collaborative news network is nonetheless a form of action on the site that's both collective and participatory in nature. Produced and proceeding from the emergence of shared values by a community of users on the site, network activism is driven by individual voices whose expressions operate collaboratively and are augmented when channeled through the network. Presuming an audience of active participants, such expressions on the network often compose themselves as addresses to fellow users, including suggestions for tactics that could be adopted in the real world in support or defense of a particular standpoint. Motivated then by an affinity to and alliance with the social or political agendas that emerge from the collectivity of fellow users' articulations, network activists operate in relation to fellow actors on the network who maintain a virtual rather than physical presence for activists themselves.

Nicholas<sup>III</sup>, a 19-year-old computer science student at a Boston-area university, for instance, recalls being compelled to act on the introduction of the Consumer Broadband and Digital Television Promotion Act (CBDTPA), formerly known as the Security Systems Standards and Certification Act (SSSCA), to the Senate by the Democratic South Carolina senator, Fritz Hollings, after reading about the discussion around the story on Slashdot. (2002, March 21) Prohibiting the sale or distribution of electronic devices unless they include copy-protection standards to be set by the federal government, the bill would force the embedding of copy protection mechanisms into all consumer digital devices, from MP3 players to cell phones, fax machines, digital cameras and personal computers. It would further require that all code distributed in the U.S. would also have embedded within it copy-protection schemes approved by the federal government. Intended to prevent unauthorized digital copying of music or movies, the bill came under sharp criticism from consumer rights groups and the high-tech industry, who argued that aside from promoting the interests of the entertainment business, the bill would also impede technology development and compromise on consumers' fair-use rights. Unsurprisingly, the bill was widely frowned upon by users of Slashdot, where debates over the clash between consumer rights and business interests in the digital era regularly played out in coverage of such topics as the Napster case, the Digital Millennium Copyright Act, and the Microsoft anti-trust case.

After learning about the CBDTPA's introduction to the Senate from Slashdot, Nicholas recalled being compelled to follow the recommendation of several other users in the discussion forum around the topic who had urged fellow readers to call, fax or write state legislators with opposition to the bill, including one who had posted a link to a list of state senators to contact:

It was really ridiculous what that bill was trying to get that passed. And so I called up Senator [John] Kerry [D-MA] and just talked to someone [from his office]

about the bill for like three minutes to say why I thought it was a bad idea... I got a letter back that was obviously a form letter, but that somewhat specifically addressed my issue. And I suppose it had results – a tally got marked against the [CBDTPA]. (personal communication, March 20, 2002)

Commenting further on why seeing the post on Slashdot uniquely lead him to contact his Senator, Nicholas explained:

Just the way the editors write and the way the users write – it's more that we should probably do something to fix this. Whereas if it were on Wired, it would just be reporting the story and not saying that the users should be taking some form of specific action to fix this. It feels like there's some kind of community feeling – that we should all do our part to make sure that more 'bad' headlines don't get posted – that we do our part to make sure that more 'bad' things don't happen so that we don't have to read about it the next day. (personal communication, March 20, 2002)

Significantly, Nicholas invokes a “we” when describing his own and what he imagines to be a wider audience's shared reaction to the news of the CBDTPA's proposal. Despite the fact that the act of calling his state senator was performed independently and without any visible physical evidence of a common enactment of opposition against the bill by fellow site readers, Nicolas characterizes the physical demonstration against it as collective and shared.

That he describes his action against the bill as one to prevent the posting of news in a similar vein in the future to Slashdot is of similar importance. Curiously, Nicholas translates the occurrence of “bad” news with the act of a story summary's posting on the same topic to

Slashdot. Such an interpretation seems to indicate not so much a general equation of the actual event of “bad” news with its reporting on Slashdot, but a will to specifically anchor such an event’s impact within the frame of Slashdot’s community. While “bad” news, as the CBDTPA’s introduction was to Nicholas, may have been reported in other venues or indeed, may have occurred without having been reported in any news outlet at all, it is its reporting on Slashdot that carries specific import and through which its heightened impact is felt. For through such an act, the reception of “bad” news is transformed from a solitary experience to one that is perceived as shared by a larger community. Recognized by Nicholas as the site through which social collectivity manifests and is experienced, “bad” news’ impact on Slashdot’s site itself, that is, its provocation of story postings devoted to it, is cited as the necessary outcome to prevent.

Further, Nicholas also reveals a sense of confidence that Slashdot readers themselves can impact and influence the reporting of news. Through individual readers separately voicing their protest against, in this case, the CBDTPA proposal, Nicholas explains they may collectively be able to prevent the future occurrence of more “bad” news and deter the posting of such news to Slashdot’s site.

Indeed, the discussion board around the story demonstrates that Nicholas’ recognition of a dispersed and distributed readership that may make its impact felt through a form of collective action is not isolated. With several users posting with tips and advice of how to contact state legislators to voice opposition against the bill, it’s an audience presumed to be prone to activity that they address their comments to. One reader, for instance advised others in a post:

I think someone should point this out every time a new piece of rotten legislation gets proposed. Do NOT email your representative. Do NOT send them a form letter. CALL THEIR OFFICES. SEND OR FAX THEM LETTERS YOU COMPOSED YOURSELF, PREFERABLY HANDWRITTEN. Have everyone you



know or can convince do this. This is the **ONLY** way (other than thousands of dollars in contributions) that you will actually influence votes. And, as always, **BE POLITE, BUT DON'T HESITATE TO EXPLICITELY STATE THAT VOTING FOR THIS BILL WILL COST HIM/HER YOUR VOTE.**

Another reader posted a twelve-point list of strategies for letter writing to other users that included, among its other recommendations, advice to writers that they could stress, "Your vote in the next election rides primarily on this particular issue - larger than any individual candidate's ideas or ideals," and a reminder to refer to the bill in question by its new and proper name: "It is the CBDTPA, not the SSSCA. Make sure you reference the correct legislation. It may be the same to us, but there's a world of difference to the congresscritter." One reader even posted a copy of a five-paragraph letter he had drafted and intended to send to a state senator in Illinois (it's core paragraph reading as follows: "As you may know from previous letters I have sent to you, I am a strict privacy and consumer rights advocate. In the 2000 election, many of my friends, clients, and colleagues considered my recommendations before they cast their votes. This bill will quite possibly be the most important vote you will cast in my consideration for voting to continue your incumbency in your next election. I urge you to vote **NO** to this bill, or any bills with similar intent. points to a sense of is only when a news summary is posted to Slashdot that a sense of collectivity emerges."), while another of course, had posted a link to the U.S. Senate and House of Representatives web pages where state legislators' and their contact information was listed.

Encouraged and inspired by the multiple user posts that appear in Slashdot's discussion forums that demonstrate their own intention to act against the bill in question, users like Nicholas are provided the sense that their actions are part of a larger chain of enacted dissent and collective action. That user posts also revealed personal strategies for voicing dissent

further demonstrates the heterogeneity and plurality of individual styles that would necessarily compose such a practice of opposition. Rather than adhering to a single strategy of dissent or encouraging a unified stance against the proposed legislation, it is a segmented, tactical method that attacks its target “in isolated actions, blow-by-blow,” (de Certeau, p. 36) as de Certeau writes, that the collective actor practices through Slashdot. Significantly as well, like the form of collective action that Melucci describes, it is a multi-nodal, decentralized, body of actors whose modes of participation may be characterized only in their shared lack of structural cohesion, that manifests on Slashdot. Individual participants are not compelled to action based on a position imposed hierarchically through the site, then, but based rather on the layers of voiced dissent expressed by a dispersed body of fellow users.

While such a mode of participation may enable individual users to experience collective action as an act that heightens, rather than obscures, independence and personal agency, the absence of a visibly present and coherent solidarity among actors can also lead to a sense of confusion and doubt over the effectiveness and impact of users' individual acts of protest. Such a degree of uncertainty of users' political effectiveness was expressed by Nicholas as he described that it was in fact for news on consumers' online and digital rights that he maintained his loyalty to Slashdot:

Pretty much every time there's an important story [concerning digital rights] people will post things like legislators you can call. And I've written letters to them or called in just about every time I see something like that, but it's not like it does much. I think that [kind of information] gets utilized a lot – or at least I would hope. That's just a feeling I get. (personal communication, March 20, 2002)

Performed alone, but inspired by the social and informational exchange taking place on Slashdot's collaborative news network, the individual actions like those described by Stephen and Nicholas represent a form of network activism that both sustains and helps compose collective action as it manifests on Slashdot. Like the voices of users that it proceeds in collaboration with, such a participatory form of activism emerges too as individual points of action whose strength manifests in their collective expression.

### *Network Effects as Collective Action*

Early in 1999, when Slashdot was less than half the size it is today, Wired Magazine coined a term its "Jargon Watch" column they called the "Slashdot effect." (Wired, 1999) The phrase was intended to give a name to a form of collective action that was increasingly noticed by online publishers large and small, of Slashdot driving large waves of at times unsustainable traffic to other sites by simply posting a link to the said site from its own. Explaining the phenomena, Wired columnist Gareth Branwyn wrote that it was the "effect when a Web site is brought its knees after being mentioned (and hyperlinked) on Slashdot.org, the popular 'News for Nerds' site. The Forbes site fell victim to the Slashdot effect after a story was posted about Linus Torvalds being on the cover." (1999, February)

Characterizing the Slashdot effect as a sort of surprise attack on another site's server, Branwyn notably defined the term by emphasizing the power of the comparably less well-recognized Slashdot to bring the sites of larger, more established corporate-owned entities, including Forbes' site, to a halt, and "to its knees." Significantly as well, Branwyn's definition juxtaposed the initially benign act of a site's being "mentioned (and hyperlinked)" on Slashdot with the potentially tremendous effect the act could have on that site, which could suddenly find itself thrown off the web, having "fallen victim to" the Slashdot effect.

Malda's own explanation of the Slashdot effect on the site's FAQ, under a section titled, "What is the Slashdot Effect?," put a strikingly more ordinary twist on the term, dispensing of references alluding to an attack or assault, and eliding any suggestion of how and if power is being exercised:

When Slashdot links a site, often a lot of readers will hit the link to read the story or see the purty pictures. This can easily throw thousands of hits at the site in minutes. Most of the time, large professional websites have no problem with this, but often a site we link will be a smaller site, used to getting only a few thousand hits a day. When all those Slashdot readers start crashing the party, it can saturate the site completely, causing the site to buckle under the strain. When this happens, the site is said to be 'Slashdotted.' Recently, the terms 'Slashdot Effect' and 'Slashdotted' have been used more generally to refer to any short-term traffic jam at a website. (2000, October 28)

Technically, both Malda's and Branwyn's definitions provide the same general outline to the Slashdot effect: that a web site, after being linked to from Slashdot, can get flooded with traffic and crash. But where Branwyn offers an image of a sort of uninvited virtual attack being waged through the effect, Malda offers instead an image of curious readers clicking links, simply anxious "to read the story or see the purty pictures." A closer consideration of the range of consequences the act of linking and clicking from Slashdot may catalyze, however, seems to suggest that both characterizations may be incomplete. Contrary to a depiction of the Slashdot effect as an embodiment of the invariably oppositional relationship between the tech site and those sites it links to, the Slashdot effect reveals itself to bridge a diverse range of relationships that may be characterized as supportive, symbiotic, or arguably at times, as adversarial. And

despite attempts to evade a discussion of the collective force of users, their activation of the Slashdot effect demonstrates its potential to both destabilize and generate new power relations.

Activated by the collective action of disconnected actors, however, who remain incognizant of how the sum of their activities might impact digital environments, the unintentionally produced force of Slashdot users on other sites' servers can be described as a network effect. Like forms of network activism, network effects as a mode of collective action operate in alliance with their originating site. Unlike forms of network activism, however, network effects manifest not through a participatory web of users' responses, relations and exchanges with one another, but through a chain of unassuming, non-reactive user actions that are performed independent of one another. They are driven, in other words, without intent of impact or even a cognizance of its production among Slashdot users. Despite not operating through the dialogue of user actions that propels network activism, however, network effects enact changes within a larger online environment, and testify to the potential force of the network.

Indeed, users' own descriptions of the Slashdot effect reveal the degree to which they remain largely unaware of their own cumulative capacity to bear such pronounced impact on other sites. Explaining his reaction to learning of the Slashdot effect, Nicholas says, "It did surprise me. I never realized that so many people visited Slashdot that they could do something of that magnitude, that it had the power to bring down web servers."<sup>iv</sup> (personal communication, March 20, 2002) Pointing to the paradoxical incongruence between Slashdot's act of (and intention behind) linking to another site, and users' ability to inadvertently crash that site's server, 21-year-old Adam<sup>v</sup> added, "I'd say [the Slashdot effect] was kind of funny. Although sometimes I feel sort of sad for some of the site administrators, because I run a small server for a college radio server. If I got that many hits, that server would go down so quickly." (personal communication, March 13, 2002) Transforming the otherwise benign, isolated act of clicking through a web link into a collective, shared, and suddenly massive form of action, the Slashdot

effect amplifies the impact of individual users, while ironically taking control over the process of the magnification of their impact out of users' hands.

While the Slashdot effect can halt the delivery of a site's standard content and disrupt traditional lines of communication between an affected site and its audience, it can also spur the creation of new online content and modes of communication between a site and its audience.

When the website for the online merchandiser ThinkGeek.com experienced the Slashdot effect in 1999, they posted a page to its site (1999, September) to apologize and explain to its users why the site had temporarily shut down:

[On] September 11th, 1999, thousands of /. [Slashdot] visitors crashed ThinkGeek. It was definitely not a bandwidth issue. ThinkGeek was running on a PII 450 with 128 megs of SDRAM. Add that to a CGI intensive shopping cart, with loads of dynamic pages, an outdated version of MOD\_PERL and you have the ingredients for a Slashdot effect. What happens when you get Slashdotted? Well, in our case you simply get overwhelmed with requests and run out of memory and your server crashes. Somewhere we must have failed as geeks. And we had to spoil a 70 day uptime as well. How humbling. (1999, September)

Pointing explicitly to their inadvertent use of "outdated" software as evidence of their "failure as geeks," the ThinkGeek administrative team positions the impact of the Slashdot effect on their site less as an unwanted or undeserved attack than as a kind of constructive criticism that revealed the underlying system weaknesses that they had left unattended. (See Figure 1)

Adding a link to a photo of the fallen server, the administrators further outlined the steps they took to revive the site:

So, we created the following temp page and set out to conquer the effect which conquered us. Jen created a bunch of static pages from dynamic ones. Scott went to grab another PII 450 and 128 megs of RAM from a server at my home. I compiled a new kernel with SMP support and upgraded our version of MOD\_PERL. After Jon put the new memory and 2nd processor in the server, things went a bit smoother... An order came in. And then another. ;) Time to sit back and watch some [movies] after all. (1999, September)

Rather than interpreting the Slashdot effect as inflicting a kind of damage or injury to the site, the organization that sustains it, or the business relations it enables, the ThinkGeek administrative team saw the effect as an opportunity to improve their service and strengthen the technological architecture that supports it. Publicizing their team's efficient handling of the crash through the explanatory webpage, as well, the Slashdot effect further became an opportunity to showcase the individual contributions of and organizational cooperation between its members, and thereby build a sense of confidence among the site's audience.

Despite the heightened vulnerability of smaller websites to the threat of the Slashdot effect, the reaction of some smaller web outfits who have experienced it reveals that the phenomena has engendered more a sense pride than hostility or annoyance from the affected site's owners. After the server for the Austin Wireless group's website (at AustinWireless.net) crashed from over- visitation by Slashdot users, who were clicking into the site after a story on the organization's successful effort to build the first wireless movie theater in Austin, TX was posted to Slashdot in March, 2002, (2002, March 19) the group posted in large, bold letters at the top of their page, the announcement "We've been Slashdotted!" (See Figure 2) Included beside the declaration was a link to the Slashdot story that had originated the effect. Granted recognition for their organizing efforts through a publishing of their recent accomplishment on

Slashdot, and enabled, in fact, to measure and witness the magnitude of that recognition through its effect on their site's ability (or non-ability) to operate normally and stably, the Austin Wireless group's highlighting of its becoming subject to the Slashdot effect demonstrates their reading of it as a reward of sorts rather than an affliction. To see nothing, the absence of any effect, and the permanence of stability and the status quo, would be evidence of the organization's ineffectiveness in both a virtual and non-virtual sense – just as to witness their site's experience of the Slashdot effect, the sudden propulsion into a state other than its normal mode of operation, provides evidence that a change has been enacted.

There are, however, more pragmatic reasons for a site – particularly a relatively small, non-commercial site – to take pride in having experienced, and even to perhaps desire to experience, the Slashdot effect. Kurt Squire, the 29-year-old co-founder of the site Joystick101.org, a two-year-old independent news site focused on digital games that was modeled on a collaborative news network architecture, attributed the greater portion of their readership as having been earned through Slashdot:

Because we got Slashdotted [before], I think 95% of our readership came from Slashdot. So [our readers] all read Slashdot... When we were first Slashdotted, it was like 100,000 hits for 2 days... And then Wired picked us up because we of that. Each time we [were Slashdotted, we] probably got 20 or 30 new people who said "I've been looking for something like this my whole life." So we totally suck off the Slashdot readership. It's all overlapping. (personal communication, November 17, 2001)

Generating and often sharing news content and reading audiences for each other, the relationship between Slashdot's collaborative news network and the site's from which it draws



its content and potentially renders subject to the Slashdot effect, can often be characterized as more symbiotic and co-sustaining than competitive, combative and hostile.

Indeed, the very emergence and proliferation of sites like Joystick101, which were modeled after the architecture of Slashdot's collaborative news network, serve as testimony to the degree to which such a symbiosis can be embedded between sites. With the underlying code for the site distributed as open source, that is, as non-proprietary code that its users are free to download without charge, modify and re-circulate, a number of site owners have adopted and deployed Slashdot's code to build the infrastructure of their own site. An innumerable number of Slashdot-modeled sites that focus on topics as diverse as Macintosh computer usage, environmentalism in upstate New York, and South African fly fishing, have been founded with the site's code. Among the larger sites to have been built using its code are Plastic.com, a formerly commercial venture founded by Steve Johnson, the former editor of the online news site, feedmag.com, and Barrapunto.org, an independently-run Spanish technology news site whose name translates to "Slashdot." Commenting on the extent to which he sees Slashdot as having impacted the design of emerging technology oriented news sites, Squire says:

I would call [Slashdot] almost revolutionary. It showed this is what people could be doing with this kind of technology. This is what news could look like. It was kind of an ah-ha moment for me, and I think it was for a lot of people... And I think that all [the technology news sites I read], can be read as a response to Slashdot. They have all done design things with that in mind. And I know they all read Slashdot because as soon as something appears on Slashdot it's on their page too... I think it's just part of the shared understanding that the average reader will know Slashdot. (personal communication, November 17, 2001)

Sharing form and sometimes content, Slashdot and its network of related sites merge in and out of one another, often blurring borders between where one news web has begun and where another ends.

Unpredictable, uncontained, and lacking any particular allegiance, networks effects as a manifestation of collective action on Slashdot's collaborative news network carry a range of impacts. Such effects may at times operate to the benefit of the network, some that operate to the mutual benefit of the network and the linked associated sites, all, however, signal and attest to the potential power of the collaborative news network, which manages to continually alter digital environments, despite lacking any intentionality to do so.

#### *Network Divisions as Collective Action*

Likely the most widely-recognized version of a Slashdot-inspired site is one whose underlying code is entirely distinct from Slashdot's. Founded in 1999, the site Kuro5hin.org (pronounced "corrosion-dot-org") was established by Rusty Foster, a Slashdot user who had grown frustrated that users of the site were unable to access the submissions bin and were prevented from reading and assessing the story posts fellow users had suggested. (See Figure 3) Dedicated to designing a system that even further distributed editorial control among the site's readers, Foster designed Kuro5hin's system so that users would have open access to the submissions bin and would be able to vote on the stories that appeared on its front page. Emphasizing the distinctions between the sites in Kuro5hin's FAQ under a section titled "What about THE OTHER SITE," Foster writes:

Are we like [Slashdot]? Not really. We borrowed many interface ideas from Slashdot, because we think they had many good ideas about the mechanics of a

web discussion site. We do not use their code, or any permutation thereof. Kuro5hin.org runs on software called Scoop, which was written by Rusty (and others listed in the documentation), entirely from scratch. Ok, we did use a couple of database table definitions from slash [the code on which Slashdot runs]. But that is all. Most of the people who have asked us this question so far have found that upon closer inspection, and use, the site is really not as similar as they initially thought. In tone, culture, and operation, Kuro5hin.org is really not like Slashdot at all. We hope you enjoy our site. (2000, December 31)

Despite the relative similarity between the sites within the range of models of online journalism, and despite the history the two sites evidently share, it is the differences between the two that Foster repeatedly stresses. Acknowledging the coded material Kuro5hin appropriated from Slashdot, but significantly making no mention of what non-material, symbolic inspiration Slashdot had provided it, Foster's characterization of Kuro5hin is one that intones a disapproving critique of Slashdot, rejecting any attempts to draw similarities or associations between the sites, and ultimately seeming to dispute that any benefits – save a few database table definitions – were derived from Slashdot at all.

Positioning the founding of Kuro5hin as a critical break from Slashdot, the emergence and continued growth of the Kuro5hin community could be described as a form of collective action manifesting a network division. Unlike both expressions of network activism and network effects, network divisions position themselves in defiance of the originating site, breaking away from the original network to produce a new and distinct network that defines itself in distinction and often contest to its parent site. While the activities that sustain such outgrown sites might be described as an attempt to escape from the limitations of the original network, they may ironically also function as a testimony to its success, generating a variation of the parent

network that was only possible because of what it had already achieved, and what it may have made revealed to be possible goals yet to be achieved. Network divisions, indeed, could be argued to perform as evidence of the productivity of a collaborative news network that had cultivated an interactively participatory user base, but had reached its own particular threshold for sustaining participation among users.

Contesting, and yet tied intrinsically to its parent site, network divisions embody the contradictions of collective action through collaboratively constructed news. Ironically, as Kuro5hin, and the following case of Slashdot's trolls represent, the sustained survival of Slashdot may be the very thing that provokes the expression of more sophisticated forms of critique against it from users who are now enabled to imagine better and alternative trajectories of progression for the site. The question that remains to be uncovered then, is at what point is user action and interaction under the parent collaborative news network sustained and tolerated, and at what point is its threshold for user participation reached, and possibly breached – generating expressions of collective action that can be seen as reacting to the parent network to both progressive and conservative ends.

#### *Network Protest as Collective Action*

Perhaps one of the most curious forms of collective action to have been generated on Slashdot's collaborative news network is a body of users who have dedicated their usage of the site to trying to subvert the standard content and functionality of Slashdot – a mode of behavior known on the site as “trolling.” Such forms of action can be as ordinary and anticipated as the posting of an offtopic comment to a discussion forum – an act that Slashdot's system is designed to handle through the moderation feature – or can be as unexpected and extreme as

designated days devoted to the posting of off-topic, disruptive or “flamey” posts and organized attempts to crash Slashdot’s server.

One such manifestation of trolling was the declaration of a specific “Troll Tuesday 2k1” event on October 30, 2001. (See Figure 4) Explaining the action on a website announcing the event its organizer(s) wrote that it would be:

...a special day... when trolls of all colors and breeds, from veterans like myself to newbies..., [can] join together to celebrate how lame Slashdot is. [We’ll] troll the forum with highly-moderated garbage, post original poetry and prose, create beautiful ASCII art... Get the word out, friends! Slashdot may have been dead for a year, but Slashdot trolls are alive and well! We’re the only interesting, insightful, or funny things left on this sorry excuse for a weblog. (2001, October)

Organized against Slashdot, yet still situating themselves within the user base for it – as, purportedly, “the only interesting, insightful, or funny things left on Slashdot”– the site’s trolls occupy a contradictory space. While refusing to abandon the site, they maintain ties to it only to practice an explicitly “improper” usage of the site’s features. And while supposedly loathing of the site for being “lame,” the degree of effort exerted to organize and sustain their network protest expresses instead a twisted, tangled sort of devotion.

Much like network divisions, then, the version of collective action exercised by Slashdot’s trolls, what could be called a form of network protest, positions itself in distinction to and defiance of Slashdot’s collaborative news network. Rather than attempting to break away from the news network, however, trolls insist on maintaining their activity within Slashdot, attempting to demonstrate a form of public protest whose audience is designed to be existing users and editors of the site. Trolls’ refusal to abandon Slashdot, particularly when visiting or

creating alternative sites indeed exists as possible courses of action, then, functions (or perhaps dysfunctions) as an expression of their loyalty and dedication to the site. Likewise, that they would construct their actions with Slashdot's editors and users as the primary audience is further indication of the degree of significance and importance they assign such figures. Whereas manifestations of Slashdot's network divisions, like Kuro5hin, operate with minimal recognition of Slashdot (indeed, to the point of not being able to reference it as any more than by the term "That other site," as demonstrated in Kuro5hin's FAQ), manifestations of its network protests as exemplified by trolling behavior operate in persistent and continual response and relation to it, as if it were for them, the only site of its kind that existed.

Estimating Slashdot's troll population at less than 40 individuals, amounting to a minute slice of its total body of users, Slashdot editor Jeff Bates readily admits:

Slashdot is infamous for its trolls... I think what it shows is the degree to which they personalize their experience. For some of them it's that they have an ax to grind because a lot of them don't realize how large [the site] is... But we must be doing something if they can think on a personal level that "I have an ax to grind." And I think that the troll side of it is just the flip side of people thinking that they also care individually. (personal communication, November 13, 2001)

Significantly, Bates interprets the emergence of Slashdot trolls as an outgrowth of the site's success rather than failure, even guessing that from the standpoint of the trolling user, the practice of trolling may be an act of care.

Elaborating on how trolling practices have shaped the evolution of Slashdot's technical infrastructure, site editor Michael Sims says:

We have a population that comes everyday – and some portion of them are trying to break the system. But we are reactive. Each time they find something that they can do, or something disruptive that the system allows them to do, if it annoys us we will change the system to make that not work anymore... Say someone wants to post a gross image or a java script that will do bad things. We probably have the most robust set of filters in our discussion boards that will ensure that no one is trying to abuse the system like that. (personal communication, December 7, 2001)

Rather than seeing trolling behavior as purely unconstructive, Sims connects it to a strengthening of Slashdot's underlying code that aims to better anticipate an increasing array of trolling tactics.

Indeed, trolls' own characterization of their actions suggest that they are not motivated entirely by destructive intentions. While the author of the Troll Tuesday 2k1 website, for instance, accused Slashdot of being "dead" and proclaimed themselves as the "only interesting, insightful, or funny things left" on the site, such indictments invoke the passing of a time when Slashdot was, from the author's standpoint at least, assumedly alive, interesting and funny. Emphasizing the creative and innovative capacities of trolls who are characterized as responsible for "original poetry and prose" and "beautiful ASCII art," the Troll Tuesday 2k1 author projects trolling actions as a means to reinvigorate Slashdot with the creative, interesting and funny elements it supposedly has lost. Under such a lens, then, such an assault seems less an expression of a malicious will to destroy, than an intense lament by a body of users who see themselves as disappointed and betrayed by the changes, both in size and content, that have manifested (and continually manifest) on Slashdot.<sup>vi</sup> Rather than simply leaving the site altogether, and allowing the absence of their presence to be a statement of disapproval against

Slashdot, trolls insist on maintaining their usage of the site, redirecting their activity on it into explicitly improper, as opposed to prescribed modes of participation.

Significantly, despite the fact that trolls' improper usage patterns manifested in such tactics as attempts to post disruptive or inappropriate material to discussion forums or the submissions bin, inevitably impacts other users' experience on the site, it is not necessarily with animosity that ordinary users conceive of trolls. According to Adam:

It's not surprising [that there are so many organized trolls]. It's almost reassuring... [Slashdot has] all these people who just love to go to the site to say how much they hate it. Any other site with people who hate it and they don't go anymore. It's the exact opposite in Slashdot – you don't like the site you go there more often. (personal communication, March 13, 2002)

Like the editors of the site, ordinary users' description of trolls is notable for the lack of offense and hostility, and for the expression of an acceptance of what they insist is an unsurprising, unexceptional behavior.

Both loyal and traitorous, and both critical and devoted at once, trolling practices embody the contradictions embedded within other forms of collective action on Slashdot's collaborative news network. Unpredictable and uncontrollable, they refuse to operate according to the prescribed modes of participation on Slashdot. Yet, provoking productive transformations on the system they intend to disrupt, trolling actions demonstrate the inability to control their own direction and impact. And while they introduce a series of disordering changes and disturbances into the system, they nostalgically recall a time when they imagine that Slashdot was free of such change. Equally telling are the reactions of editors and ordinary users of the site to trolls, who refuse to place them outside or define them as an oppositional force to



Slashdot. While operating with their own distinct and at times conflicting logics, principles, and ideals, trolls remain recognized by other individual actors on Slashdot as one among multiple indeterminate trajectories of operation that manifest through collective action on the collaborative news network.

Structurally and ideologically fractured and diffuse, the tactical modes of operation on Slashdot's collaborative news network may be characterized only by their common resistance to developing a stabilized body of practices. While traditional news production models may assess their strength through their effectiveness in enforcing internal cohesion and conformity, it is a composite of multiple modes of participation that often contradict or conflict with one another that conveys the power and potential of collective action on collaborative news networks. Unpredictable and lacking any particular allegiance, the forms of collective action that manifest virtually from Slashdot's collaborative news network unleash a chain of effects that frequently, too, may be uncontrollable, generating change when it expects none, or yielding benefits when it intended none. Despite the divergences and tensions between the orientations of individual actors on Slashdot, however, their association of practices to the site collectively testifies to the emergence of a new mode of news production whose unity is in fact sustained by a pointed departure from stability and cohesion.

#### NOTES:

Branwyn, G. (1999, February). Jargon watch. *Wired*. Retrieved April 12, 2002, from <http://www.wired.com/wired/archive/7.02/mustread.html?pg=4>

de Certeau, M. (1984). *The practice of everyday life*. Berkeley, CA: University of California Press.

Kuro5hin.org faq. (2000, December 31). What about THE OTHER SITE?. Retrieved April 12, 2002, from <http://www.kuro5hin.org/?op=special;page=random#othersite>

Leonard, A. (1999, October 8). Open-source journalism. Salon.com. Retrieved April 12, 2002, from [http://www.salon.com/tech/log/1999/10/08/geek\\_journalism/index.html](http://www.salon.com/tech/log/1999/10/08/geek_journalism/index.html)

Melucci, A. (1996). Challenging codes: Collective action in the information age. Cambridge, UK: Cambridge University Press.

Moon, J. (1999, October 10). Open-source journalism online: Fact-checking or censorship? Freedom Forum Online. Retrieved April 12, 2002, from <http://www.freedomforum.org/templates/document.asp?documentID=7802>

Preecs, B. (2000). Open source journalism: An alternate strategy for using the Internet to empower citizens and strengthen democracy. Retrieved April 12, 2002, from <http://www.makeyourownmedia.org/osj.htm>

Slashdot.org. (1999, October 4). Jane's Intelligence Review needs your help with cyberterrorism. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=99/10/04/0836212&mode=thread>

Slashdot.org. (1999, October 7). Jane's Intelligence Review lauds Slashdot readers as cyberterrorism experts. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=99/10/07/120249>

Slashdot.org. (2002, March 19). First 802.11 Wireless Movie Theater?. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=02/03/19/2232204&mode=thread>

Slashdot.org. (2002, March 21). SSSCA introduced in Senate. Retrieved April 12, 2002, from <http://slashdot.org/article.pl?sid=02/03/21/2344228&mode=thread>

Slashdot.org about. (2002). About this site. Retrieved April 12, 2002, from <http://slashdot.org/about.shtml>

Slashdot.org faq. (2000, October 28). Why has Slashdot become so successful? Retrieved April 12, 2002, from <http://slashdot.org/faq/slashmeta.shtml#sm330>

ThinkGeek.com. (1999, September). Slashdotted. Retrieved April 12, 2002, from <http://www.thinkgeek.com/slashdotted>

TrollTuesday2k1. (2001, October). Retrieved April 12, 2002, from <http://www.geocities.com/trolltuesday2k1/>

Figure 1. Screen shot of ThinkGeek webpage, posted after the site experienced the Slashdot Effect on September 11, 1999.

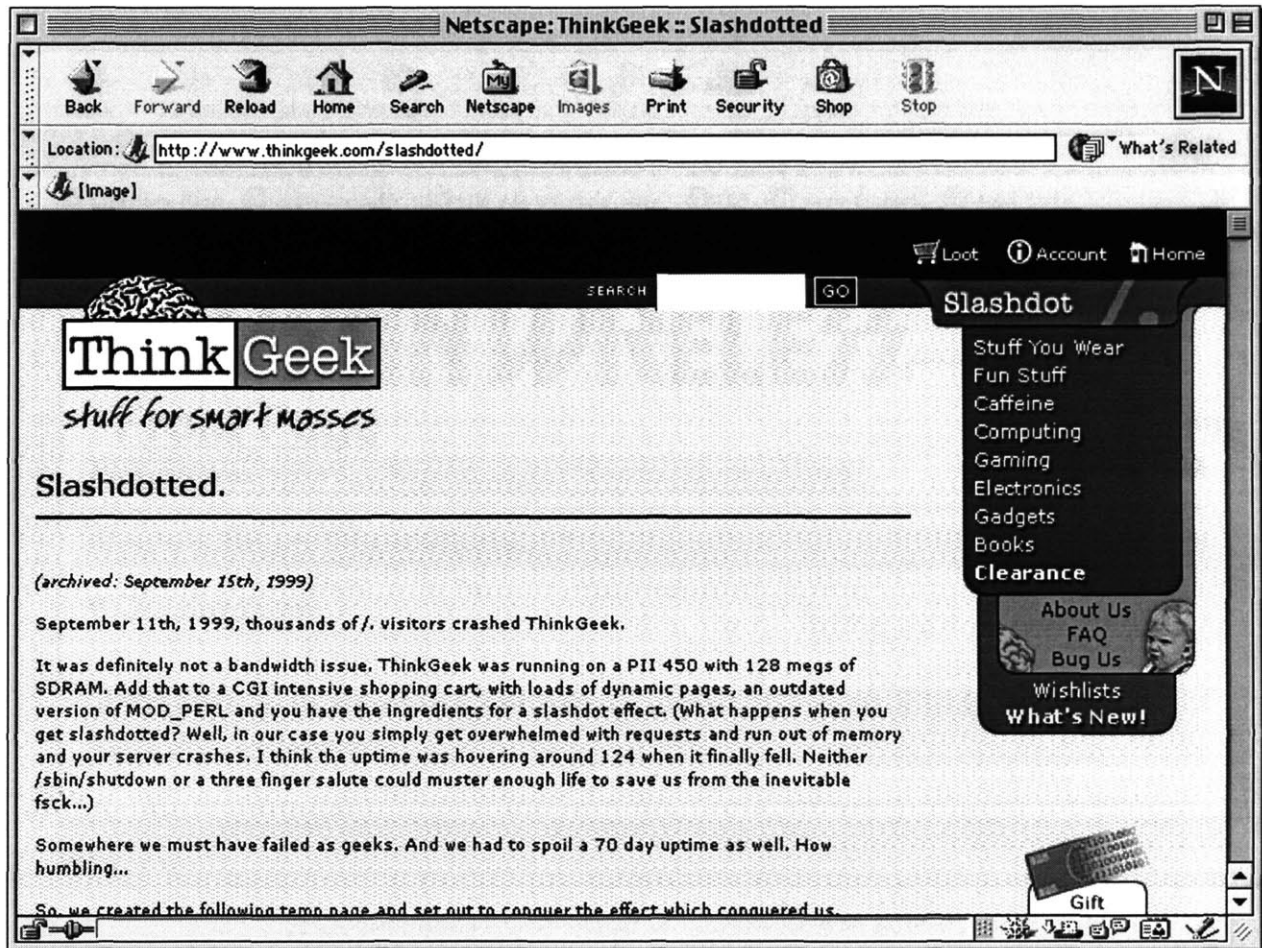


Figure 2. Screen shot of the webpage for the Austin Wireless Group, after it experienced the Slashdot Effect on March 19, 2002.

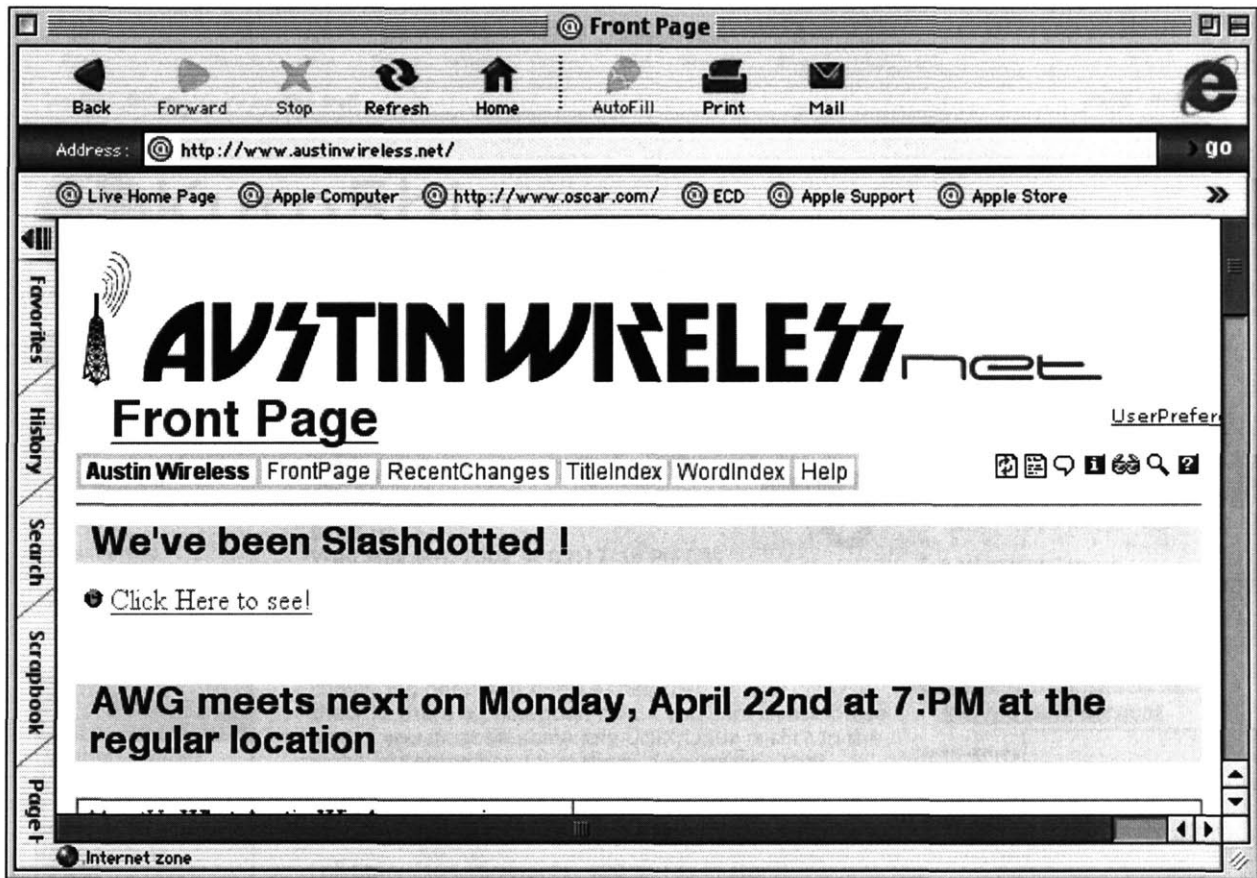
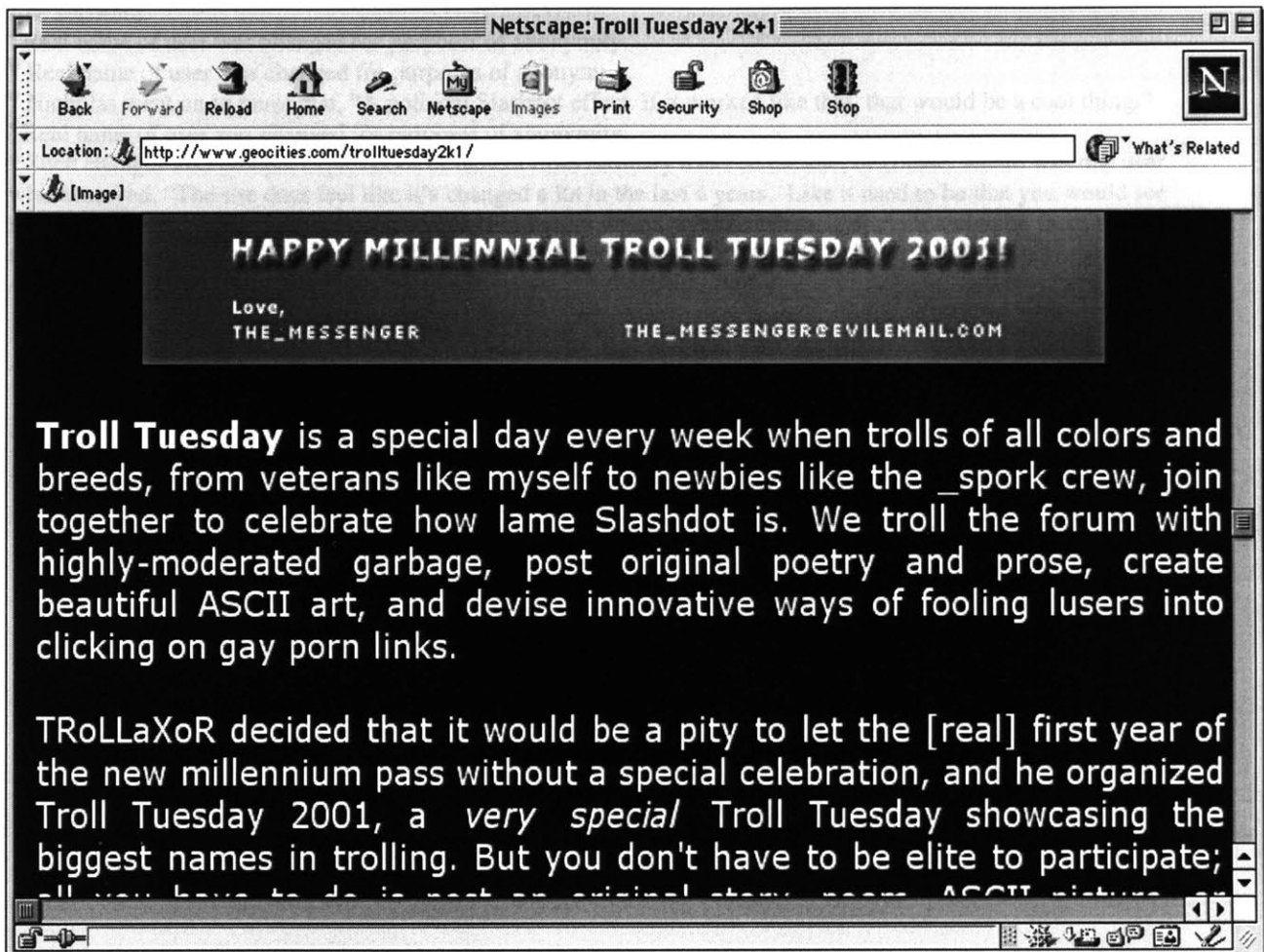


Figure 3. Screen shot of Kuro5hin.org webpage. Taken May 8, 2002.



Figure 4. Screen shot of the webpage for the organizers of the Troll Tuesday 2k1 event, intended to have been held October 30, 2001.



## ENDNOTES:

---

<sup>i</sup> GPL, BSD and the Apache licenses are three of the major licenses used to develop and maintain open source and free software.

<sup>ii</sup> Real name of user was changed for purposes of anonymity.

<sup>iii</sup> Real name of user was changed for purposes of anonymity.

<sup>iv</sup> Nicholas went on to muse that, "A political Slashdot effect. If it worked like that, that would be a cool thing."

<sup>v</sup> Real name of user was changed for purposes of anonymity.

<sup>vi</sup> Such changes also compel expressions of lament from ordinary users of the site, of course. Adam was one user who observed, "The site does feel like it's changed a lot in the last 4 years. Like it used to be that you would see really important people from the open source community would post to the site, and there would be these really long threads where they would be bickering back and forth. And they were great, but you don't see that anymore."

**Collaborative News Networks: Distributed Editing, Collective Action,  
and the Construction of Online News on Slashdot.org.  
Chapter 5: Conclusion**

My intention in this study was not to comprehensively define precisely what Slashdot's collaborative news network is, to determine how it functions, or assess its successes and failures. For indeed, such a task would be an impossibility to accomplish, given the analysis of collaborative news networks provided in the previous chapters. What I did hope to offer instead was a portrait of Slashdot based on a composite of user and editor practices, individual interpretations, and site functionalities as they currently manifest on and through the site at the time of this study. Admittedly, the portrait is one made up of contradictory and conflicting elements that can complement, as much as they attempt to diverge from, one another. And admittedly, as well, it is one that recognizes its relevance as necessarily temporary, having adopted as its object of study a site and body of constituting practices that are themselves in constant states of flux, transition, and transformation. It is a portrait, however, that I hope may still illuminate some of the new potentials and tensions that are created in emergent forms of online news production and distribution.

For despite persistent questions and anxieties about how interactive news environments affect professional journalists' roles, production processes, and users' capacity to shape and self-select news content, research that considers the specific practices that emerge in the construction, production and distribution of online news – and particularly, new forms of online news authored by non-traditional news producers – still remains limited. An exploration of news construction on Slashdot, however, reveals it to be a particularly valuable site of study for embodying a case where a pronounced departure from the established norms of news production, as defined and determined by mainstream news companies, is enacted.



Among the defining practices that emerge, then, on Slashdot's collaborative news network is an explicit incorporation of users as agents who are not only able to self-select and modify their own news content, but are integrated as the dominant producers of content for the site. While conventional routines of professional news productions might suggest that such an integration of users as participants in news construction and shaping would impair the ability of a news site to generate the confidence of its audience, a consideration of user practices generated from their new roles as content producers, and users own characterization of Slashdot, reveal that it is instead largely through their incorporation as sources and analysts of news that a trust in and commitment to the site is fostered. The strength in the practice of news exchange and distribution on Slashdot's collaborative news network lies, however, as much in its ability to highlight users' expertise in the identification and analysis of news, as in its enabling of a collective process of news construction where users can act as both sources and commentators of news. Such a process creates a new space to which news value may be assigned, expanding understandings of what crucial news documents are to include not just news articles, but the discussion forums that are associated with them, where users say news can be reported, assessed and interpreted.

Editorial practices of collaborative news networks are likewise transformed into ones that are organized to tolerate a diversity of modes of operation and encourage personal expressions, rather than attempting to enforce a conformity of practice and suppress the representation of individualized perspectives. While the organizational culture of mainstream news media has been argued to constrain news production processes, centralizing control within a limited party of editors and managers, and enforcing standardized professional practices, the decentralized structure of Slashdot's editorial team fosters instead a plurality of editorial styles. Similarly, while mainstream news production has been critiqued for being determined through professional routines and hierarchies to the exclusion of audience input, editorial decision making in

Slashdot's collaborative news network occurs instead with an explicit consideration of audience concerns, interests and feedback. Rather than operating to maximize efficiency, rationality, and objectivity in news production, Slashdot's decentralized editorial model works instead to promote a diverse body of production styles and content that appreciates the subjectivity of interpretation, and a transparency of those frames of interpretation, over the objectivity of facts. It is such a diversification and distribution of editorial control, and the promotion of the qualities of subjectivity and transparency in news that it allows, that proves to foster users' trust in the site.

Yet while news construction through collaborative news networks generates such potentials for audience participation and editorial collaboration with users, it also introduces several new complications. Dispensing of the separation between editorial practices and audiences, the privileging of editorial interests over those of their audiences, and the impositions of conformity in editorial practices, Slashdot engenders a model of online news where editorial production is shaped through a continual negotiation of editor and user interests. With no clear, collectively agreed upon lines of authority and control established, decision making processes are transformed into activities laden with tensions between distinct participants in content construction and where editors are frequently seen as no more (and indeed to some, less) entitled to editorial authority than users.

Such distinctions and divergences of individual interests similarly characterize the forms of collective action that emerge through Slashdot's collaborative news network. For indeed, the modes of user participation that manifest on the site are frequently characterized by a pointed individualistic contentiousness that operates in distinction to the interests of other users and as frequently, to those of the site's editors. Structurally and ideologically fractured and diffuse, the tactical modes of operation on Slashdot's collaborative news network may share only their common resistance to developing a stabilized body of practices. Functioning with multiple,

rather than a singular, operational logics and principles that often conflict with one another, then, it is a composite of these unpredictable, unauthorized modes of participation that testifies to the potential of collective action on collaborative news networks. Such potentialities of action take form in impacting the personal decisions of individual users, in affecting the access and creation of information beyond the site, and in causing disruptions in the access and production of information on the site itself.

This study, however, is an attempt to broaden the paths and direction for future research in online news, and in emergent forms of online news sites particularly. For indeed, a number of areas of study become apparent as available for further research on collaborative news networks. While I have focused here on the incorporation of site users as the primary agents in the production of content, still largely undiscussed has been the role users have played in the shaping and driving the construction of the technological architecture of Slashdot and other networks of collaborative news. For indeed, with the underlying code for Slashdot, Slashcode, and that for other collaborative news networks (notably Kuro5hin's Scoop software) distributed as open source code, users with programming expertise have been able to volunteer their skills to contribute portions of the underlying code that sustain collaborative news networks in direct ways. Similarly, through suggesting changes to existing features, calling for the addition of new ones, or simply identifying current problems in the functioning of particular features and exchanges on the network, users have actively shaped the development of the technological architecture for collaborative news networks. Indeed, as exemplified with Slashdot's designers' enhancement of the site's comment filters as an attempt to counter trolling activity, even users' deliberate misuses of the site's features have helped to drive the development of the underlying code.

Further research could also be conducted on how changes in ownership of the site have affected news production processes on collaborative news networks. With Slashdot's transition

from a non-commercial, independent to a profit-seeking, corporate-owned site, following its acquisition by Andover News in 1999 and Andover's own acquisition by VA Linux (now VA Software) less than a year later, what changes were affected in both the composition of the site's editorial and user base, and in the practices for the construction of content? How did user and editorial perceptions of the site and their roles and responsibilities on it become altered with the transition? What tensions or complications in editors' and users' relationships resulted from the decision to relinquish an identity from an independent, non-commercial site to a commercially owned one, given that Slashdot had cultivated a significant portion of its user base and ethics of practice from its formerly independent status? Similarly, what new tensions or complications in management of the site resulted for Andover and later VA Software, given the site's dependency on an active and engaged user base that might simultaneously be critical of both entities' investment in the site, and how were such tensions managed or resolved? What forms of legitimacy were compromised, and what new ones were generated by the site's transition to a corporately-owned entity? And how finally, did a composite of all such elements alter and manifest through the content and news coverage of the site?

Questions of financial profit, profitably, and compensation on collaborative news networks similarly have yet to be more deeply explored. Although banner advertisements have been the dominant means for generating economic revenue on Slashdot as they have for many online news sites, a new form of subscription where users could pay to remove such ads from appearing during their visits was recently introduced to the site. Still unstudied, however, are questions of what profit-generating models were adopted during the site's history, and how they might have corresponded with developments in the site's user or ownership base. How is and has economic profit been distributed, and how have such patterns of distribution been determined? What new complexities and debates are generated between users and editors over questions of revenue generation, and how do such tensions manifest on the site? And

how have complications in compensation patterns, given the involvement and investment of users as content producers for the site, emerged and been addressed?

The site's relationship to the open source and free software movements could also be a topic of further research. With an originating identity as a site devoted to open source news, and a substantial portion of its audience and editorial base composed of active users and programmers of open source and free software, Slashdot has come to be regarded as a leading site for coverage of open source and free software news (even with the broadening of its coverage of news to include more general science and technology related topics). Hosting a community of advocates for open source and free software, it could be perceived as both generating and benefiting from increased adoption and usage of open source and free software. Among the issues that could be investigated, then, are what values and principles of open source and free software are embedded into the design and practice of Slashdot's collaborative news network. How has the site's coverage of open source and free software related issues changed as the site's and open source software's own user bases have expanded, and with the increasing commercialization of open source software? What are the personal networks and relationships that editors sustain, both formally and informally, with other figures in the open source and free software movements, and how do they affect the articulation of values that are manifested on the site? And finally, how has the site been affected by users' own patterns of use, perceptions, and activity around open source and free software, while it too influences users' use and activity associated with open source?

Similarly, more extensive research could be conducted into the new manifestations of collaborative news networks that have emerged and their relationship to primary sites that have exemplified the potentials – and limitations – of collaborative news. With distribution of Slashcode and other versions of coded architecture for collaborative news sites as open sourced code, a wide array of news and discussion sites devoted to both technology-specific

and non-tech-related issues have begun to be cultivated in recent years. Among the most widely-recognized of these sites, as mentioned in the previous chapter, are the sites Kuro5hin.org, an independent site that was founded by a former users of Slashdot in 1999, and Plastic.com, a commercial site that was launched by Automatic Media in 2000. What features are transformed or what new functionalities are introduced through the expression of a collaborative news network in distinct communities, then, could be a topic of future exploration. Similarly, a more comprehensive study of such sites' relationships to mainstream news sites and as well as other collaborative news networks might be conducted, as new patterns of news story coverage and news exchange become possible.

The use of collaborative news sites by professional journalists is a finally another topic to which further study could be devoted. Just as collaborative news networks can and have relied on news coverage from mainstream news sites to generate sources for story submissions and discussion forums, so too are professional journalists from other news outlets now also able to turn to collaborative news sites as resources for story ideas, research on issues for future articles, or simply to gain a sense of the range of opinions expressed on a particular topic by a community of users. As seen with the Jane's Intelligence case, collaborative news networks may also be used by professional journalists to solicit or access critique of news coverage. How then, do collaborative news networks construct a space for professional journalists and audiences to interact, providing audiences with a heightened potential to influence news coverage in mainstream publications, just as they are able to influence the coverage of news on the network itself? How has the accessibility of collaborative news networks as a reporting resource affected the long-term coverage of particular news topic? What complications and tensions in the notions and practice of "legitimate" news work arise when audience input as expressed through collaborative news networks is allowed to be regarded as a primary source

for journalists? And what new conceptions of audiences among news professionals then, do such exchanges between audiences and journalists, enable to be constructed?

This study, then, hopes in part to raise more questions than it can answer about the field of online news that continues to redefine and transform itself. Those that have been outlined above represent what is surely a mere portion of other than might be posed, just as what had been presented in previous chapters as an examination of the social practices and processes surrounding the production and distribution of news on Slashdot's collaborative news network represent what is a mere slice of others that have been and continue to be innovated. For indeed, the forms and modes of expression that are generated on emergent models of online news sites do not allow themselves to be predicted or fully accounted for. Demonstrating the dynamism and multiplicity of user and editorial practices that are sustained on such sites, researchers must be prepared to discover emergent models of online news production that cannot be characterized or recognized by traditional modes of the news production that have been defined by processes of organized routines and consensus. Similarly, they must be prepared to find previous attempts to define an essential or definitive experience of "the audience" of news challenged by the diversity in modes of users' interaction with online news. For the destabilization of traditional lines of authority in online environments and the transformation of the roles of editors and audiences within collaborative news networks particularly, require that researchers be prepared to reconsider established categories for and conceptions of news production, its product, its makers, and the social meanings that are ultimately generated around each.