

News Geography & Monopoly: the form of reports on US newspaper internet sites

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ABSTRACT *US newspapers that publish electronic editions on the internet do not appear to reinvent themselves online. Instead the web versions reproduce the substance of their print editions in a way that relates similarly to readers. Reaching stories online can be a process involving multiple screen jumps and scrolls but only a few stories have added features, such as hyperlinks to additional information, images, or interactive resources. Newspaper stories online differ very little from those printed in the originating newspapers. The internet versions do not usually add to or change the text of the stories, and their presentation is visually meagre, especially compared with print, which has a richer typographical range and presents many more images. The results suggest that print publishers use their internet presence as a low-cost place holder that guards their US market position and erects a barrier to the entry of geographical competitors and ideological alternatives in the US news arena.*

KEY WORDS: *Internet, Newspaper, United States, Web, Format*

In 1901 US news was understood as the rapid transmission of many stories. Reporters had by that time developed the doctrine of the scoop, or first report (and the exclusive, or unique report). Their definition of news emerged over the course of the century, as first the telegraph and later the telephone, as well as the wire services, became a network for covering the who, what, when, and where of politics. An important story from Washington would be printed as a stack of updates, in reverse chronological order, just as they came over the wire (Barnhurst and Nerone, 2001). The form of news, rather than being a direct or simple result of the technologies of production, was an expression of the definition of news (as the first account of events), as well as an outcome of the procedures of event-centered reporting.

In 2002 dictionaries and ordinary people still define news as a first report of events, but the news stories US journalists write have changed. Today an important political report from Washington must explain what happened (Barnhurst and Mutz, 1997). As a result, news stories have

become generally longer, more analytical, and focused on interpretation.

This article takes its theoretical cues from these two arguments. From the theory of news form, it looks at internet newspapers as an expression of larger historical processes, systems of news production, and assumptions about politics and publics. From the perspective of the new long journalism hypothesis, it looks at web editions in light of a larger redefinition of news as a cultural product.

Although journalists have noted that technology is changing what they do (*Nieman Reports*, 2000), it remains unclear how the emergence of the internet as a distribution network has related to the form of US news stories themselves. Newspapers justified earlier changes as a response to television, which robbed the press of being first to report events. The instantaneous distribution of newspaper stories online renews at least the possibility for newspapers to return to the doctrine of the scoop. However, the web also has few space limitations, and so newspaper reporters might just as likely write

lengthier, more explanatory accounts. What impact, if any, has the publication of web editions had on the form of US news reports?

Impact of the Internet

In an early analysis of online journalism, Tom Koch predicted that the then-new electronic technologies would “empower writers and reporters” and “eventually redefine the form of news in specific and of public information in general” (1991, p. xxiii). Koch argued that a wealth of online information sources would allow reporters to change news, supplying more background from the archive of previously published news. He saw the advent of electronic databases and online access to newspaper, magazine, newsletter, and journal archives, as well as other published documents as an opportunity to redefine news.

A survey in 1995 found only 17 per cent of newspapers had an online edition (although 52 per cent had plans to begin publishing electronically; see Ross, 1998, p. 154, Fig. 10.11). However, most reporters were already using online information (47 per cent at least weekly and 30 per cent less frequently; see Ross, 1998, p. 146, Fig. 10.1). The respondents used the internet for a full range of reporting activities: research and reference (66 per cent), downloading data (57), emailing sources (57), reading publications (45), finding experts (41), consulting press releases (26), and gathering images (21 per cent; see Ross, 1998, p. 149, Fig. 10.5). The study projected that online newspapers would “in the near future, differ from” print editions; they would have more frequent deadlines because of the ease of updating stories online.

A few years later, when estimates of the number of internet users came close to ten million, Jon Katz noted that the news online still amounted to the presentation of “information and breaking news from existing print media” and asked “whether papers will finally accept reality and radically change or whether they prefer to die” (1997, p. 44). At that time, he said, “Not a single major paper has even put email addresses at the end of stories so that readers can communicate easily with reporters, a simple addition most papers have

had the technological capacity to do for years” (p. 58). He called for a “journalism radically rearranged to become more interactive, graphically competitive, better written, more sophisticated” (p. 68).

Christopher Harper, however, in a chapter on “Doing Digital Journalism,” described how working online *was* changing news stories. He profiled a reporter he calls “a new breed of journalist” (1998, p. 73), Cornelia Grumman, of the *Chicago Tribune* internet edition, who found writing stories for online publication frustrating: “She started on the newspaper’s print side, where she covered suburban police departments. ‘My first instinct was to do quick hits,’ she recalls. ‘They went nowhere. They were up for a day and, boom, they’re gone’ ” (p. 77).

She had greater success (that is, work that stayed longer on the site and involved more readers) when she began writing more complex stories. Her analysis of a murder and police investigation, “Who Killed Stacey Frobel?”,

appeared in both the on-line and print editions without significant editorial differences. In the Internet edition, however, readers could click on a chronology of events, a list of the people involved in the crime and investigation, and a variety of background stories—far more than would have been available in the daily newspaper. (pp. 77–78)

Harper noted that as of 1998 “digital journalism remains in its infancy, and there are growing pains” including the fear that the electronic edition may replace print and the criticism of “the approach of the internet version as being more gimmicks than news” (pp. 82–84).

Ross, in his discussion of the online technology and sources survey, reported that few internet editions were allowed to scoop their print edition as of 1998 and that few were “doing much original reporting on their websites at all.” What original reporting he found was archival, “extra material tacked on . . . with little ‘added value’ ” (1998, p. 156).

Surveys indicate that, as of 2000, one in three Americans was going online for news at least weekly (up from one in five in 1998; see Norris, 2001, p. 176). In her analysis of databases on newspaper websites and United Nations data on the press, Pippa Norris estimated that 53 per

cent of print newspapers in North America had an electronic edition as of 2000, and the proportion of online editions was related not only to how many people had online access but also somewhat to the number of printed newspapers (2001, pp. 179–85, especially Tables 9.1 and 9.3). Electronic newspapers ranged from a mere “shop window announcing their existence” to “all the daily news printed in the paper version and more, such as special archives, audio interviews, photomontages, rolling banner news headlines, readers polls, and links to related sites” (p. 175).

By 2000 newspapers were adding elements to provide more details and enhance the online editions while sticking with the print edition text. Norris notes that access to information from other internet sites besides newspapers is necessary if the new technology is to enhance democracy. Measurements of internet traffic indicate that US users are spending more time online but visiting a narrower range of sites (see, for example, the news report by Harmon, 2001). Although thousands of websites contain information on a topic such as health, for example, only a handful of sites account for the bulk of traffic. Users seeking news are even more concentrated. Three old media-related sites—MSNBC, CNN, and the *New York Times*—account for three-quarters of traffic online for US news.

A comparison of content from the two versions of six Colorado newspapers found that most online editions included fewer than half of the stories from the print editions (40.6 per cent, ranging from 21.5 to 54.8 per cent, with no clear pattern related to circulation; see Singer, 2001, pp. 71–73). Publishers withheld information from the internet to reduce costs and to make the print editions more valuable to subscribers, and some used the electronic editions to advertise the additional content in print. Online editions were mostly staff generated, but none of the content was generated initially for electronic publication. The text of the story was usually identical in both venues (with at most a change in headline and the addition online of a paragraph or two cut from the print version). The reports that appeared only in the internet edition were almost always from wire

services. The topical coverage differed as well, with more sports and fewer business stories included online compared with the print coverage. Finally, the websites had fewer images (18 per cent, compared with 48 per cent of print stories that ran with artwork; see Singer, 2001, p. 76).

Most of the initial research about online news has focused on the technology in its potential applications (e.g. Garrison, 2000) or on the economics of internet editions (e.g. Chyi and Sylvie, 1998). The analysis of news content online has received some attention, as noted, and a recent meta-analysis of internet content research found only three studies of news sites, one of them dealing with Asia (McMillan, 2000). Although the analyses included graphical elements (e.g. Li, 1998), they did not compare them with their appearance in print, and they did not explore their larger meanings as part of the form of news. Studies of online technology and its economics for journalism deal with form only by inference, as do the previous studies of content.

The form of news deserves focused attention for several reasons (Barnhurst and Nerone, 2001). First, the form is what makes a newspaper or other news outlet recognizable even though the contents change regularly. Second, that familiar form creates an environment that invites the public into a steady relationship with economic and political entities beyond journalism, including civil society and the public sphere. Finally, news form is a way of hailing to the audience, because it records the physical traces of how news people imagine and approach their readers and viewers.

The history of news form shows that the news industry has always been slow to adopt new technologies, moving apace only when conceptions of news have changed among journalists or when the relationships of news media with public life have evolved. Research on the new long journalism has tracked the growth of explanatory news, which is more focused on journalists and on the news industry (e.g. Barnhurst and Mutz, 1997; Barnhurst and Steele, 1997). The redefinition of news from event centered (at the end of the nineteenth century) to journalist centered (at the end of the twentieth

provides the context for the move of newspapers onto the web.

The research on internet news sites suggests that although newspaper publishers moved quickly to establish an online presence, they have been slower to exploit the full capabilities of the technology. Reporters, however, have adopted electronic techniques for gathering information and interacting with sources, although the effect on the content of their stories has not been measured. Most news stories on newspaper electronic editions appear to duplicate the text from at least a portion of the print editions, and enhancements such as additional archival material, hyperlinks, and discussion areas are far from the rule for the websites. There have been only a few content analyses of online newspaper sites, and the single study comparing print with online content was limited to local papers in one western US state.

A Range of Web Editions

This study takes the next step, examining the content online of newspapers from other regions and comparing topical coverage from the national, regional, and local US press. It asks what these newspaper-run websites are like for their user/viewer/readers. Do the news sites merely upload their print edition content? Have they added related archival content and interactive features, as observers predicted? More importantly, has news changed in fundamental ways by moving online (that is, is the move online an expression of fundamental changes in news)?

Three newspapers were selected to represent a range of US market sizes and geographic regions. The *New York Times* is so widely known and studied as to require no introduction. It is one of the few nationally distributed US newspapers in print, and its web edition is among the most frequently consulted sites on the internet. Although it also serves a local market, its reach is national. The *Chicago Tribune* is an important regional newspaper. Its parent corporation has a national impact through syndicated content, the super-station WGN on cable television, and ownership of

other news media (listed at Tribune.com), but the newspaper and its internet version tend to operate as a dominant voice in the Midwest, with limited impact elsewhere in the country. The Portland *Oregonian*, operated under ownership of the Newhouse chain, Advance Publications, is a daily that serves primarily the communities in and around a mid-sized city in the Pacific Northwest.

The three newspapers operate internet sites that represent a range in the spectrum of online newspapers. All three provide access to content from their print editions but in somewhat different ways. The *New York Times* attempts to reproduce the authoritative quality of its print edition, enhanced by more frequent updates and access to the latest reports from several wire services as well as by a range of multimedia and interactive supplements. The *Chicago Tribune* comes closer to a comprehensive city-based web portal, developed initially to compete with the Microsoft Sidewalk products. Print edition content is integrated with a variety of interactive content, response mechanisms, and links that lead to archives and current information (such as sports scores and film reviews). The Portland *Oregonian* exists (along with its sister publication, the *Hillsboro Argus*) as part of a larger web portal, OregonLive.com (operated by a separate corporate division, Advance Internet, not by the local newspapers). The site includes a full range of content found in other city-based portals, but the *Oregonian* is a separate news area on the site, providing local content without being fully integrated into the portal (as in the *Chicago Tribune*) and without using the capabilities of interactive technology on its pages (as in both the other sites).

Although no selection of a handful of news outlets is representative of the entire US industry, these three organizations span the continent and the range of the daily urban press in their circulation, market size, and impact. Previous studies of US online editions focused either on local newspapers (Singer, 2001) or on national newspapers, including the *Washington Post* and *USA Today* as well as the *New York Times* (Li, 1998). The mix of web editions selected for this study provides a snapshot of

several approaches for generating an online site from established print newspapers.

A purposive census of stories was conducted during three consecutive weeks in late July 2001, a period similar to that used in previous studies (Li, 1998; Singer, 2001). A non-probability sample was chosen because archives are incommensurable to each day's news site on the web during the date of posting, especially for the elements of layout and design. Collecting a probability sample would have imposed substantial delays on the research (Riffe et al., 1998), and the previous study found that probability sampling introduced errors in coding related to sequencing and to the comparison of print with online stories (Singer, 2001). The time period was selected to avoid the predictable distortions of important US holidays (such as Independence Day) and other regularly occurring major events (such as elections). During late July, news begins to slow down, especially political reporting, in anticipation of the August recesses and vacation periods. During relatively slow news periods, reporters have the greatest freedom to experiment with stories and may venture into new ways that heavier news periods do not allow. The sample period was chosen to allow a generous assessment of content decisions in the newspaper internet editions.

For each topic, an exhaustive search was conducted for each newspaper site, beginning from the portal page and then on through the secondary and subordinate pages in the order they appeared on the site navigation bar, left to right and top to bottom. Once the manual exploration was complete, the site search engine was used to discover any additional stories on the topic which were missed due to human error or for lack of any links to the news site main pages (not surprisingly, such stories turned up occasionally).

The selection of topics followed the protocol established in previous research (Barnhurst and Mutz, 1997), which content-analyzed stories on employment, crimes, and accidents. For this study political reports are also included. These categories were general enough to include a range of content that defines journalism but specific enough to allow reliable classification of stories. To assess how a topic was covered,

rather than how often a topic appeared, all stories on the news site were collected for each topic. When classifying stories, inclusiveness was followed as a general principle. The process continued for seven days or until a total of 40 stories per topic was gathered from each newspaper site. This strategy produced a total of 160 stories per newspaper, and 480 stories in all.

For each story, coders recorded 19 distinct observations. Besides general information about the site, date, and topic of the story, coders also characterized the story's place in the cycle of news production (such as whether it was staff produced and whether it was a follow-up). To describe the story's physical appearance, coders also recorded its location within the internet site (based on the notion of depth; see Silver, 2000), the typography of text and headline (if any), and the types of links and images that ran along with the text of the story.

After the initial coder progressed through a small sample of stories, an identically trained coder went through the same procedure. Given the complexity of the coding scheme, the reliability was quite high (averaging 0.89). The tabulated results were subjected to tests of statistical significance (chi-square for tables and analysis of variance, with *post hoc* Sheffe tests, for ratio and interval measurements). Differences among the sites and topics followed what would be expected from a general knowledge of the particular news organizations and the categories of content.

As a final check on results, email correspondence and unstructured interviews were conducted with staff members from the three newspapers, who provided explanations of some of the production routines followed and the relationships between the print and online editions of the newspapers.

Familiar Faces Online

To explore the environment created by the web versions, the coding provided details about the interface between the reader and the story. In general, it appears that the newspapers manage to project onto the internet something very similar to the image they maintain in their print editions: the same relative emphasis on text,

Table 1. Content structure: percentage of stories placed on the home, secondary, or tertiary section of three newspaper internet sites for four topics, July 2001

	<i>Times</i>	<i>Tribune</i>	<i>Oregonian</i>	Politics	Jobs	Crime	Accidents	Total
Section								
Home page	6.3	21.3	8.8	15.0	10.8	8.3	14.2	12.1
Topical page	58.1	75.6	75.0	81.7	70.0	65.0	61.7	69.6
Other page	35.6	3.1	16.3	3.3	19.2	26.7	24.2	18.3
<i>N</i>	160	160	160	120	120	120	120	480

For site, chi-square = 68.30, $df = 4$, $p < 0.000$. For topics, chi-square = 28.34, $df = 6$, $p < 0.000$.

and, to a lesser degree, on visual design and pictures, as well as the same conception of themselves and their relationship to their imagined readers.

How each newspaper sees its role and what it expects of its readers is revealed in the structure of the news site: the placement of stories in a section (home page versus another page), their position within the page, and the jumps required to read all the way through them.

The three newspapers present themselves online according to the sectioning scheme of their print editions. Users enter the sites from a home page or portal that contains a topical index of the site (in the form of a navigation bar) and a list of top stories of the day. Earlier newspaper web designs began from a home page that was entirely for navigation and linked to the principal news page, which was called the front page (Li, 1998). Of the sample sites only NYTimes.com retains such a page, which in the current structure merely repeats most of the elements contained in the site home page (and therefore was not analyzed differently from other such pages linked to the home page). The home page may simply list the top headlines, as in the *Oregonian* site, or provide a headline and abstract for major stories, along with a list of headlines for other stories. The main, or home, page is like the front page of the print edition, but instead of any lengthy text, it contains an elaborate index, not unlike the one appearing daily on page 2 of the *New York Times* print edition.

Although an internet home page has more capacity than any printed front page, the news sites not only included hardly any text, but signaled (by headlines and some introductory blurbs) only about an eighth (12.1 per

cent) of the stories we examined (Table 1). ChicagoTribune.com listed the most content on its home page, followed by the *Oregonian* and NYTimes.com.

The bulk of content appeared on the secondary, topical pages within the websites. The topics of the secondary pages closely resembled those found in print, including International, National, Local or City, Business, Sports, and the like. These topics emerged in newspapers a century ago as an expression of the relationship with different publics and suggested how the newspaper conceived of those audience sectors (Barnhurst and Nerone, 2001). The shift from Society to Women's pages in the early twentieth century, for example, occurred as publishers reconceptualized women as shoppers and homemakers rather than as society matrons. Such changes were closely related to the needs of advertisers, a pattern that the internet sites retain.

NYTimes.com placed more than half its content on topical pages, and the other two internet news sites included much more—a full three-quarters of the stories. On average, a reader of these three internet news sites had to go through two pages to reach a story.

The news sites also included a third tier of pages, which could be reached by clicking on links from the topical pages. These other pages were of two types, minor coverage and outside coverage. Those containing links to less important stories were labeled as, in the case of the topical page on sports, "More Sports." Those containing links to outside news providers were labeled with the name of the service, such as "More from the AP" (for Associated Press). ChicagoTribune.com only rarely required a reader to dig to this third level. NYTimes.com

Table 2. Position and length: mean screen jumps to reach a story link and to scroll through a story text on three newspaper internet sites for four topics, July 2001

	Link position	Story length	Total screens
Overall	2.79	3.28	6.14
Site	*		
A. <i>New York Times</i>	2.59	3.38	6.27
B. <i>Chicago Tribune</i>	3.13 ^A	3.17	6.11
C. <i>Portland Oregonian</i>	2.66	3.29	6.03
Topic	**	***	
A. Politics	2.29	3.67 ^{C, D}	5.84
B. Employment	2.85	3.40	6.33
C. Crime	3.16 ^A	3.04	6.38
D. Accidents	2.88	3.01	5.98

One-way analysis of variance (df 2, 479): *** $F = 6.91$, $p < 0.001$; ** $F = 4.12$, $p < 0.01$; * $F = 4.28$, $p < 0.05$.

^{A, B, C, D} *post hoc* Sheffe tests with significance level of at least 0.05.

required the most digging, with one-third of the stories two or more pages away from home. And the *Oregonian* split the difference. (Topical differences are discussed later.)

Once the reader had selected a page to scan, two more steps remained: moving down through that page—and these could be quite long—and then moving down through the selected story (Table 2). Given the small window available for reading on most computer screens, almost all the pages required scrolling. The only exception was the *Oregonian* site, which limited its main page to roughly one screen of headline links organized by topic (which made its topical pages that much longer).

The average link for *Chicago Tribune* stories was more than three screens down the page. Although readers needed to download fewer pages, they had to scroll down farther within each one. (Using a uniform 11-inch window within a 14-inch computer screen, each screen revealed about six vertical inches of text from a story). The *Oregonian* and *Times* required less scrolling. When the story came up, its length imposed additional clicks down the page, and the sum of all this clicking meant that a reader had to go through more than six screens to get from the home page through the bottom of the average story. The *Oregonian* site required the shortest total scrolling, and the *Times* the longest.

In other words, the *Tribune* site front-loaded its content, imagining an impatient reader satisfied with just the headlines for most news and driven only by particular interests to move to a topical page and scroll through to the bottom of a story. The *Times* site imagined its task not to give a quick rundown, but to serve a reader more widely interested and more willing to burrow in. The *Oregonian* site split the difference in these measurements, presenting itself as a storage location, like a discount grocer that provides a limited selection and makes few accommodations for customers. These characterizations make it clear that the newspapers did not reinvent themselves online—the relationship with readers implied by the forms is similar in print and online, especially for the *Times* and the *Tribune*.

Frugal Presentations

The visual appearance suggests that all three sites were designed to be economical for publishers. The typographic palette was limited, with little variation in headline typefaces and sizes (and almost none in text, just as in print). There were few images appearing with stories. The *Oregonian* included none at all. The *Times* ran the most images, including 28 photographs with stories (and a story could be illustrated with as many as three). The *Tribune* ran a wider

range of images (seven photos, one illustration, two infographics, and two other images). The differences among the sites were statistically significant (chi-square = 13.33, $df = 3$, $p < 0.01$). These are extremely small numbers of images (out of 160 stories per website). Measurements taken five years earlier had found that very few stories from the main pages of NYTimes.com included images (13 per cent, about on par with the findings here), which were quite small (Li, 1998). In physical size, the images found in this study were also very small, averaging not much larger than the typical mug shot of newsprint. Here again, the *Times* ran its images larger.

Andrew Zipern, a senior technology news producer for the *New York Times on the Web*, explained that "some of larger graphics, maps and charts are too difficult to quickly translate" (email correspondence with the author, 2001). Such practical considerations tend to rule decisions about what gets posted on the internet sites. Each of the representatives contacted for this research indicated that as much of the process as possible was automated. In other words, the emphasis in moving news content online is on technical economy, not on the possibilities created by new technology or the necessities growing out of any new definition of news.

The sites were also parsimonious in their use of capacities unique to the internet. Hyperlinks were an infrequent element in the stories, just as was the case in previous studies. More than three-quarters of the stories (75.8 per cent) had no links at all. The *Oregonian* site provided mostly email addresses for the reporter (92.5 per cent of links), and the occasional link to other websites. The *Chicago Tribune* site linked to video, audio, and writer email (which were coded in the "other" category, 41.2 per cent) and to outside websites (11.8 per cent), but almost half its links were to related reports appearing that week in its own pages (47.1 per cent). Only the *New York Times* site had a wide range of links, including those to other sites (62.5 per cent), to chat or discussion lists (18.8), to related reports (12.5), or to the archives (6.3), but without any to audio, video, or email. Across the three sites, about half the stories

with one link also had a second link (or, in other words, the average number of links per story was 1.65, excluding those without any links at all). The differences among the sites were statistically significant (chi-square = 111.84, $df = 8$, $p < 0.001$).

The pattern set in the structure of pages and the control of type and imagery is reiterated in the application of hyperlinks. The *Oregonian* went for economy, simply providing an email address, and that allowed reader responses. The *Tribune* used links as a sales tool for its archives and as an enhancement to make the site visually entertaining. And the *Times* focused on its documentary mission while keeping aloof from readers. In short, the newspapers projected online the image and substance of their print editions.

Considered as a whole, the topical coverage on the sites conveyed a standard of news that emphasizes power and danger. Political (15.0 per cent) and accident (14.2) stories were the most likely to appear on the home page, and employment (10.8) and crime (8.3) the least (see Table 1). Political stories were higher on the page (2.29 screens down), and other stories required scrolling closer to the average number of screens (2.79; see Table 2). The two preferred topics, politics and accidents, required the reader to scroll down fewer screens, politics because it received favored placement and accidents because the stories ran short (although these differences weren't strong). Accident stories, however, had visual prominence. They included the most images (14), all of them photographs, and accident images ran larger than those related to the other topics. Links were especially likely to appear with accident stories (2.29 links per linked story).

The contrasts between print and online editions do not always exploit online capacities or make reading easier for viewers, and the print editions are richer visually. The online newspapers add a few multimedia options but their principal benefit is archival, giving access to stories for retrieval, and that is also true when considering the production of content (Table 3).

A reader seeking news online would find about half of the stories on the *New York Times* (55 per cent) and *Chicago Tribune* (47.6 per cent)

Table 3. Content production: percentage of stories drawn from staff reports and from wire reports on three newspaper internet sites for four topics, July 2001

	<i>Times</i>	<i>Tribune</i>	<i>Oregonian</i>	Politics	Jobs	Crime	Accidents	Total
Staff produced								
First report	33.1	28.8	58.1	38.3	35.8	45.8	40.0	40.0
Follow-up	11.9	23.8	40.0	35.8	28.3	18.3	18.3	25.2
Wire service								
First report	43.1	31.3	1.3	16.7	25.8	27.5	30.8	25.2
Follow-up	11.9	16.3	.6	9.2	10.0	8.3	10.8	9.6
<i>N</i>	160	160	160	120	120	120	120	480

For sites, chi-square = 126.22, df = 6, $p < 0.000$. For topics, chi-square = 17.65, df = 9, $p < 0.05$.

sites came from wire services (for this study, articles produced by the newspaper's own syndicate were counted as staff produced). Although a reader would find almost no wire reports within the Portland *Oregonian* online edition (found at www.oregonlive.com/oregonian), elsewhere (at www.oregonlive.com/newsflash) the parent site provides a constant stream of wire service reports (not included in Table 3).

Reports dealing with politics were the most likely to be staff generated (74.1 per cent, compared with 64.1 per cent each for employment and crime, and 58.3 per cent for accident stories). Follow-ups appeared most frequently for staff-produced stories across the board, and politics again had the best record for follow-up.

The emphasis across the board is on *new* news, with first-day reports outnumbering follow-up reports almost two to one. A 60:40 ratio of first-day to follow-up reports holds for the *Tribune* and the *Oregonian*, but not for the *New York Times* on the web, where the split is closer to 75:25. The one thing that the internet does in abundance, especially at NYTimes.com, is to supply a constant flow of wire stories. These were useful for tracking breaking news—something that might attract a news junkie.

The downside for other readers is the repetition. Editors deal routinely with updates from wire services, which repeat old information but add a layer of something new each time, and editors must choose the most recent but also the best from the various wire services. That task becomes the reader's duty online. Especially at NYTimes.com, many different ver-

sions of the same event can appear on the same day's site: one generated by the *Times* staff, one by the Associated Press, one by Reuters, and so forth.

The capacity of internet sites compounds the task. As stories change and are posted on the web, old versions do not always get removed. Something as simple as a changed headline can result in duplication, with two ostensibly different reports (as encountered on the home and topical pages of a site) actually containing exactly the same text. At other times, a story appears that closely resembles one appearing the previous day (without any substantial change in content that would signal a follow-up report, something that occurred occasionally in all three of the websites).

The versions from wire services and from different days provide variation without real difference, the same events rendered in very similar ways. The experience of repetitive content gets reiterated because of the cross-linked characteristic of the internet. What seems like duplication can turn out to be another route to the same, not a duplicate, report, but for the reader it amounts to the same thing. Someone who wanted to read all the day's reports on some subject (such as, say, Afghanistan) would face a laborious process, like being in a maze with very few dead ends, circling through content without a sense of completion, without any clear exit or end-point.

Posting errors, dateline errors, and multiple versions by different news services meant that almost one-tenth of the reports online were identical or similar renditions of the same

events (of the entire sample, 1.3 per cent of the duplications came from the *Oregonian*, 4.0 per cent from the *Tribune*, and 4.4 per cent from the *Times*). The difficulties presented by repetition and the sheer volume of news stories do not serve readers, but the pattern probably says more about the news organizations' attitudes toward the new medium than toward its users. Coupled with the limited use of hyperlinks and the like, the complexities of using the web editions illustrate a resistance toward the new technology (which has been a pattern for publishers since the nineteenth century; see Barnhurst and Nerone, 2001).

Print and Web Editions

A final step was to compare print and online content. One-third of the electronic versions were checked against the text of the printed versions. Print editions follow strict design guidelines, but the range of type sizes and weights used in print was much wider than on the internet sites. There were many more images in print, a difference even a cursory comparison makes clear, and the print images were much larger and more varied. An obvious reality in print was the absence of repeated stories. The *New York Times*, which had the greatest share of wire stories in its web version, relied much less on wire services for the print edition. Finally, the text of staff-generated stories in the print edition was almost always identical to the text online.

Staff members from the three newspapers confirmed that the print content tends to be duplicated each day online. Almost all of the *Oregonian* online content was staff produced (98.1 per cent; see Table 3), and the site is required under chain control to download its print content directly from the newspaper's computer files. In an interview with the author (2001), Michele McLellan, special projects editor for the *Oregonian*, made clear that journalists on the staff of the newspaper were dissatisfied with this arrangement, preferring to make the web edition more than "shovelware", a term web designers disparagingly use for sites that simply post print files online.

All of the news reports gathered online also

appeared in the newspapers' print editions. That does not mean that the internet editions limited themselves to content from the print edition. In an email survey asking online journalists in New York, California, Florida, and Texas how much content was unique to the electronic edition (that is, not also published in the print edition), estimates ran quite high (from 19 per cent among local papers to 45 per cent among national papers), but the study concluded that the "percentage of unique online content was low" (Chyi and Sylvie, 2001, pp. 239–40). From anecdotal accounts, it appears that the content added online most often included such things as links and archival material. The text of news stories was largely unchanged for the two editions.

At ChicagoTribune.com the staff share was smaller (52.5 per cent), and an internal archiving program automatically transfers the print edition files to the electronic edition, although reference room staff members do choose the latest version of a breaking story and the most complete of the zoned versions of a Metro page story, according to Margaret C. Holt (email correspondence, 2001), customer service editor for the Tribune Company. At NYTimes.com, the share of staff-written pieces was less than half (45.0 per cent of the total), and the stories all go onto the web, said Zipern, except for content from the weekly regional sections for Westchester, New Jersey, and Long Island. Wire service reports enter each website through a different route, governed by each newspaper's contract for wire content.

The patterns in online content reiterate the importance of economic concerns and corporate control in the structure and form of newspaper web editions. The printed newspaper is still the true home of daily journalism, with better imagery and user-friendliness, although journalists appear to be pushing for web editions that serve readers better and provide the journalists themselves with more control over the use of their work.

Colonizing News Geography

This study provides a descriptive account of only one phase in the entrance of newspaper

publishing onto the internet. Web editions of newspapers are not currently archived in a form comparable to the back issues and microfilm copies available in libraries. Without those archives, regular sampling and measurements such as those taken for this study are needed to track the development of news online.

Because the print edition text is usually transferred directly to internet sites, it might seem safe to assume that the rise of internet news has had little impact on news reporting. That assessment would be premature. Anecdotal evidence suggests that the presence of the internet has begun to affect how journalists think about news, that is, which events they cover and how they recount them. A precise measurement of those changes depends on longitudinal data, taken at regular intervals to allow comparisons. Besides further descriptive studies such as this one, additional research is needed to measure the who, what, when, and where of the reports themselves, to determine how internet newspapers are influencing the text of news reports generally.

In their form, internet newspapers are clearly not expressions of the exciting possibilities of the web. The millennial rhetoric surrounding the internet proclaims its potential to offer information in a richer environment, capable of providing video, audio, chat, and feedback as well as a generous store of images and related text resources. One of the principal advantages that promoters of the web tout is instantaneous transmission, without the processes required to manufacture and distribute print on paper. Besides greater variety and speedier distribution, internet news outlets obviously have the capacity to house much larger volumes of content. These much vaunted advantages and benefits of web publishing, however, are minor elements in the news sites examined. Instead, the news online is primarily textual, as previous research found (Li, 1998).

The picture of online news from the three sites clearly reflects the economic resources available to the originating newspapers. The *New York Times* provides the greatest access to wire reports in addition to its largely text-based staff writing and a limited number of news

pictures. It takes advantage of the linking capability of web publishing the most, but focuses on text, rather than on the multimedia content, to advance its reputation as a newspaper of record. The *Chicago Tribune* uses less wire-generated content and directs readers more consistently into its own related stories, with an obvious interest in profiting from its archives, and its use of audio and video links primarily extends the visual personality of the print newspaper onto the internet. The *Oregonian* has the fewest resources, at least as housed with the newspaper content, but those pages live within a larger site that incorporates breaking news and other traditional newspaper content, such as classified advertising and reviews of restaurants and other local service providers, in what is a commercial site about the city and region.

On all three sites, the news exists as one feature of what is primarily a commercial setting. Market considerations are the dominant forces, not journalism or its relationship to the public. That of course could change, although financial concerns have become more pressing as internet enthusiasm has waned and as the news industry has faced an economic downturn. Coupled with those changes are the assumptions among journalists about what makes the best web newspapers. The highly commercialized city portal, a model best illustrated by *ChicagoTribune.com*, has consistently received top honors in industry competitions discussed in the pages of the trade magazine *Editor & Publisher* (found at editorandpublisher.com), where the *Chicago Tribune* has itself been named one of the world's best online newspapers.

What the internet editions do provide in abundance is access to materials from their content providers. All three of the sites have some means of providing news from wire services. Although desirable for someone requiring constantly updated information, the process does produce all sorts of duplications and small variations without an increase in substance or in the perspectives from which events are recounted. By giving readers access to its suppliers of information, a newspaper site dilutes its own monopoly control over a geographical market. People within its circulation

area have a free alternative to purchasing the print edition each day, but the confusion and difficulty of using the web edition, to say nothing of the discomfort involved in reading much text on a computer screen, suggest that newspaper publishers have built a leaky vessel, designed to push readers toward the firmer ground of the printed product. This same result was even more evident in the previous study of Colorado news sites, which did not include all their print edition content (Chyi and Sylvie, 2001).

In relation to a broader market, including potential users worldwide, the internet editions have just the opposite effect on monopoly conditions, enhancing their parent organization's dominance over the market for information within their geographical purview. People outside the circulation area for the print edition, including not only residents who have traveled or relocated elsewhere but also anyone seeking first-hand information about their locality, are most likely to turn first to the dominant newspaper in that location when going online. The content of the *Oregonian*, for example, is simply not available through any other means, short of making contact with individuals living in Portland. The *New York Times*, on the other hand, becomes a primary point of reference throughout the world for users seeking information about the United States, especially those without ties within the country or knowledge of alternatives.

The consequence of this would be especially acute for news sites that have no print edition and do not own the domain name rights to a locality such as Chicago. The principal newspaper organizations have laid claim to the prime real estate online, further marginalizing and effectively narrowing the range of viable alternatives. Ethnographic research among web staff members has revealed a conscious news business strategy to dominate the virtual geography of the internet (Riley et al., 1998), by seeking to hold users within the newspaper site. The strategies for holding users include building pages that take longer (more screens) to navigate, reducing links to external sites, and buying up competing sites to create a virtual colony. Within their local markets, the newspaper websites studied are principally place hold-

ers, which provide few outside links and require lengthy stays to get access to a complex array of stories, many of which provide variation without much difference in content or perspective. Their topical coverage emphasizes the power of politics, as well as the danger inherent in accidents, which receive preferred placement and more imagery. As expressed in the form examined here, the web editions do little to build interactive communities. The internet newspaper may instead make it more difficult for alternative media outlets to enter the markets where the newspapers hold monopolies on local news and other information such as classified advertising. On the web, news organizations appear to sacrifice some monopoly control over physical geographies to become *de facto* colonial powers over virtual geographies.

The news itself, at least when examined as structured on these web editions, has not changed in fundamental ways simply by moving online. From this examination, it appears that the impact of the internet has so far been felt only in the technical processes of production, involving the transfer of print reports into electronic storehouses. Historically, transformations in the form of news have involved forces beyond mere technical changes (Barnhurst and Nerone, 2001). Photography finally became essential to newspapers, for example, long after the technology was available to print pictures using the halftone screen. It was not until journalists moved fully to a new definition of pictures as news that photography became integrated into the press. The corporate media are concerned first with financial success and treat news as product, to repackage to vie for more attention and dollars from consumers. Under this formation, the internet newspaper focuses on holding market share. Journalists, however, have developed a professional status that, one can hope, will counterbalance corporate profitability with a civic mission to make information available and accessible to an interactive public.

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