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### **The Form of Reports on U.S. Newspaper Internet Sites**

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*The Form of Reports on U.S. Newspaper Internet Sites*

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## *The Form of Reports on U.S. Newspaper Internet Sites*

### *Abstract*

U.S. newspapers that publish electronic editions on the Internet do not appear to reinvent themselves on line. Instead the Web versions reproduce the substance of their print editions in a way that relates similarly to readers. Reaching stories on line can be a process involving multiple screen jumps and scrolls, and only a few stories have added features, such as hyper-links to additional information, images, or interactive resources. Newspaper stories on line 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 visual presentation is spare, especially compared to 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 U.S. market position and erects a barrier to the entry of geographical competitors and ideological alternatives in the U.S. news arena. (162 words)

Manuscript and references (5648 words)  
3 Tables

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### *The Form of Reports on U.S. Newspaper Internet Sites*

In 1901 U.S. news was understood as the rapid transmission of many stories. Reporters had recently developed the doctrine of the “scoop,” or first report (and the “exclusive,” or unique report). Their definition of news emerged as the telegraph and telephone, along with 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 technology was an expression of event-centered reporting.

In 2001 dictionaries and ordinary people still define news as a first report of events, but the news stories U.S. 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.

Although journalists have noted that technology is changing what they do (Technology 2000), it remains unclear what impact the emergence of the Internet as a distribution network has had on U.S. 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 on line renews at least the possibility for newspapers to return to the doctrine of the scoop. The Web, however, 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 U.S. news reports?

### *Previous Research*

In an early analysis of on-line 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: xxiii). Koch argues that a wealth of on-line information sources will allow reporters to change news, supplying more background from the archive of previously published news. He saw the advent of electronic databases and on-line access to newspaper, magazine, newsletter, and journal archives, as well as other published documents as an opportunity redefine news.

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

A few years later, when estimates of the number of Internet users came close to ten million, Jon Katz noted that the news on line 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: 44). At that time, he said, “Not a single major paper has even put e-mail 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” (58). He called for a “journalism radically rearranged to become more interactive, graphically competitive, better written, more sophisticated” (68).

Christopher Harper, however, in a chapter on “Doing Digital Journalism,” described how working on line was changing news stories. He profiled a reporter he calls “a new breed of journalist” (1998: 73), Cornelia Grumman, of the *Chicago Tribune* Internet edition, who found writing stories for on-line 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' " (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. (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" (82–4).

Ross, in his discussion of the on-line 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 Web sites at all." What original reporting he found was archival, "extra material tacked on . . . with little 'added value' " (1998: 156).

Surveys indicate that as of 2000, one in three U.S. Americans were going on line for news at least weekly (up from one in five in 1998, see Norris 2001: 176). In her analysis of databases on newspaper Web sites and United Nations data on the press, Pippa Norris estimated that 53 percent of print newspapers in North America had an electronic edition as of 2000, and the proportion of on-line editions was related not only to how many people had on-line access but also somewhat to the number of printed newspapers (2001: 179–85, see esp. 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" (175).

By 2000 newspapers were adding elements to provide more details and enhance the on-line 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 U.S. users are spending more time on line but visiting a narrower range of sites (see, for example, the news report by Harmon 2001). Although thousands of Web sites 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 on line for U.S. news.

A comparison of content from the two versions of six Colorado newspapers found that most on-line editions included fewer than half of the stories from the print editions (40.6 percent, ranging from 21.5 to 54.8 percent with no clear pattern related to circulation, see Singer 2001: 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. On-line 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 on-line addition 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 on line compared to the print coverage. Finally, the Web sites had fewer images (18 percent, compared to 48 percent of print stories that ran with artwork, see Singer 2001: 76)

The research suggests that although newspaper publishers moved quickly to establish an on-line 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, hyper-links, and discussion areas, are far from the rule for the Web sites. The single study comparing print and on-line content was limited to local papers in one western U.S. state.

### *The Study*

This study takes the next step, examining the content on line of newspapers from other regions and comparing topical coverage from the national, regional, and local U.S. press. It asks what these newspaper-run Web sites 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? Has news changed by moving on line?

Three newspapers were selected to represent a range of market sizes and geographic regions. The *New York Times* is so widely known as to require no introduction. It is one of the few nationally distributed U.S. 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, 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 around a small city in the Pacific Northwest.

The three newspapers operate Internet sites that represent a range in the spectrum of on-line 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 multi-media 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 site that provides local content without being fully integrated into either the portal (as in the *Chicago Tribune*) or the capabilities of interactive technology (as in both the other sites).

Although no selection of a handful of news outlets is representative of the entire U.S. industry, these three organizations span the continent and the range of the daily press in their circulation, market size, and impact. They also provide a snapshot of several approaches for generating an on-line site from established print newspapers.

A purposive sample of stories was selected during three consecutive weeks in late July 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, and collecting such a sample would have imposed substantial delays on the research (see Riffe, Lacy and Fico 1998). A previous study of Internet newspapers found that probability sampling introduced errors in coding related to sequencing and to the comparison of print to on-line stories (Singer 2001). The time period was selected to avoid the predictable distortions of important U.S. 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 experiment in 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 home page and then on through the secondary and subordinate pages in the order they appeared on the site's navigation bar, left to right and top to bottom. Once the manual exploration was complete, the site's 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's main pages (not surprisingly such stories turned up occasionally).

The selection of stories 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 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 nineteen 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, 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 .89). The tabulated results were subjected to tests of statistical significance (Chi-square). 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, e-mail correspondence and interviews were conducted with staff members from the three newspapers, who confirmed the principal observations and provided explanations of some of the production routines followed and the relationships between the print and on-line editions of the newspapers.

### *Results*

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, 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.

A home page might be more capacious than a front page, but the news sites included hardly any text and signaled (by home page headlines, some with introductory blurbs) only about an eighth (12.1 percent) of the stories we examined (see Table 1).

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

	Times	Tribune	Oregonian	Politics	Jobs	Crime	Accidents	Total
<b>Section</b>								
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
N	160	160	160	120	120	120	120	480

For site, Chi-square = 68.30,  $df = 4$ ,  $p < .000$ . For topics, Chi-square = 28.34,  $df = 6$ ,  $p < .000$ .

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 Web sites. NYTimes.com placed more than half its content there, 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. ChicagoTribune.com only rarely required a reader to dig to a third level. NYTimes.com 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 (see Table 2).

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

	<u>Link Position</u>	<u>Story Length</u>	<u>Total Screens</u>
Overall	2.79	3.28	6.14
<b>Site</b>	*		
A. New York Times	2.59	3.38	6.27
B. Chicago Tribune	3.13 <sup>A</sup>	3.17	6.11
C. Portland Oregonian	2.66	3.29	6.03
<b>Topic</b>	**	***	
A. Politics	2.29	3.67 <sup>C, D</sup>	5.84
B. Employment	2.85	3.40	6.33
C. Crime	3.16 <sup>A</sup>	3.04	6.38
D. Accidents	2.88	3.01	5.98

One way analysis of variance (df 2, 479):

\*\*\* F = 6.91, p < .001, \*\* F = 4.12, p < .01, \* F = 4.28, p < .05

A, B, C, D post hoc Sheffe tests with significance level of at least .05

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. 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 secondary 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 on line.

Their visual appearance suggests that the 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 3). The *Tribune* ran a wider range of images (7 photos, 1 illustration, 2 infographics, and 2 other images). The differences among the sites were statistically significant (Chi square = 13.33, df = 3,  $p < .01$ ). These are extremely small numbers of images (out of 160 stories per Web site). In their physical size, the images themselves were also very small, averaging not much larger than the typical mug shot of newsprint. Here again, the *Times* ran its images larger.

The sites were also parsimonious in their use of capacities unique to the Internet. Hyper-links were an infrequent element in the stories. More than three quarters of them (75.8 percent) had no links at all. The *Oregonian* provided mostly e-mail addresses for the reporter (92.5 percent of links), and the occasional link to other Web sites. The *Chicago Tribune* site linked to video, audio, and writer e-mail (which were coded in the "other" category, 41.2 percent) and to outside Web sites (11.8), but almost half its links were to related reports appearing that week in its own pages (47.1 percent). Only the *New York Times* site had a wide range of links, including those to other sites (62.5 percent), 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 e-mail. 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,  $p < .001$ ).

The pattern set in the structure of pages and the control of type and imagery is reiterated in the application of hyper links. The *Oregonian* went for economy, simply providing an e-mail 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 on line the image and substance of their print editions.

Their topical coverage conveyed a standard of news that emphasizes power and danger. Political (15.0 percent) 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).

In sum, the contrasts between the print and on-line editions do not always exploit on-line capacities or make reading easier for viewers, and the print editions are richer visually. The on-line newspapers add a few multi-media 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).

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

	Times	Tribune	Oregonian	Politics	Jobs	Crime	Accidents	Total
<b>Staff-produced</b>								
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
<b>Wire-service</b>								
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
N	160	160	160	120	120	120	120	480

For sites, Chi-square = 126.22, df = 6,  $p < .000$ . For topics, Chi-square = 17.65, df = 9,  $p < .05$ .

A reader seeking news on line would find about half of the stories on the *New York Times* (55 percent) and *Chicago Tribune* (47.6 percent) 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* on-line edition (found at [www.oregonlive.com/oregonian](http://www.oregonlive.com/oregonian)), elsewhere (at [www.oregonlive.com/newsflash](http://www.oregonlive.com/newsflash)) the parent site provides a constant stream of wire service reports (not included in Table 3).

Comparing the topics, reports dealing with politics were the most likely to be staff-generated (74.1 percent, compared to 64.1 each for employment and crime 64.1, and 58.3 percent 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 down-side 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 on line. Especially at NYTimes.com, many different versions 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 produce a duplication, with two ostensibly different reports (as encountered on the main 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 Web sites).

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 a 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 on line were identical or similar renditions of the same events (1.3 percent of the *Oregonian*, 4.0 of the *Tribune*, and 4.4 of the *Times*).

A final step was to compare print and on-line 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 the same as on line.

Staff members from the three newspapers confirmed that the print content tends to be duplicated each day on line. Almost all of the *Oregonian* on-line content was staff produced (98.1, see Table 3), and the site is required under chain control to download its print content directly from the newspaper's computer files (McLellan 2001). At *ChicagoTribune.com* the staff share was smaller (52.5 percent), 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 (Holt 2001). At *NYTimes.com*, the share of staff-written pieces was less than half (45.0 percent of the total), and the stories all go onto the Web, except for content from the weekly regional sections for Westchester, New Jersey, and Long Island (Zipern 2001). Wire service reports enter each Web site through a different route, governed by each newspaper's contract for wire content.

### *Conclusions*

Internet newspapers have the potential to offer news 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 of the Web is its instantaneous transmission, without the processes required to manufacture and distribute print on paper. Besides greater variety and speedier distribution, Internet news outlets can contain much larger volumes of content. These advantages and benefits of Web publishing, however, are minor elements in the news sites examined.

The picture of the on-line news from the three sites clearly reflects the different 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. The *Chicago Tribune* uses less wire-generated content and directs readers more consistently into its own related stories, and its use of audio and video links 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.

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 access to 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, but it also builds dominance over the on-line market for information within its geographical purview, further marginalizing news sites that have not print edition and effectively narrowing the range of viable alternatives.

This study provides only a descriptive account of 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 on line.

From this examination, it appears that the impact of the Internet has so far been felt in the processes of production, involving the transfer of print reports into electronic storehouses. The newspaper Web sites examined are principally place holders, which make it more difficult for alternative media outlets to enter local markets where the newspapers hold monopolies on local news and other information such as classified advertising.

Because the print-edition text is usually transferred directly to Internet sites, it might seem safe to presume that the rise of Internet news has had little impact on news content. 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.

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