

## TECHNOLOGY AND THE CHANGING IDEA OF NEWS

### *An Analysis of Content on U.S. Newspaper Internet Sites*

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#### *Abstract*

Moving newspaper content onto the Internet has not, in itself, changed what journalists write. In many ways, the who, what, when, where, why, and how of news stories continue to evolve in ways that enhance the professional authority of journalists. Stories are longer and have more explanations of how and why. They emphasize more groups than individuals, and more individuals are officials or outside sources. These results suggest that news continues to move toward the new, long-form journalism found in previous studies. The Internet, however, appears to have had an indirect impact, becoming a symbolic goad to journalists, who fear its market power and have adopted the idea of finding more linkages among the events they cover. In this sense, the impact of the Internet has been salutary. Reporters are writing news stories that include many more events and link those events to others in history. Editors are pushing for more attention to local news, and the locations of news stories since the rise of the Internet have moved dramatically closer to the places where people act as citizens, reversing a century-long trend.

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 & Nerone, 2001). The technology was an expression of event-centered reporting.

In 2001, dictionaries and everyday conversations still define news as a first report of events, but the news stories that U.S. journalists write have changed. Today an important political report from Washington must analyze

and interpret what happened (Barnhurst, 1991). As a result, news stories have become generally longer, more analytical, and focused on interpretation, and every other aspect of news has been affected: who has shifted to officials and interest groups, what has shifted to fewer episodes, when to past and future contexts, and where to larger domains.

It remains unclear whether the emergence of the Internet as a distribution network is influencing another shift in the definition of news. Online newspapers are still young and usually unprofitable, and publishers generally do not produce content initially for the Web edition, preferring a more economical routine: mounting the text of their print edition online (Barnhurst, 2001). And yet reporters are using networked resources to gather information and find connections among related events, past as well as present. Editors and publishers have begun to think differently about news, as a result of the potential for competition from the Internet. If not in fact, at least symbolically, the World Wide Web has enlarged what Herbert Blumer (1969) called the media arena. Has the mere existence of the Internet begun to influence the who, what, when, and where of news reporting? If so, in what ways? Has instantaneous distribution of news online encouraged reporters to return to event-centered coverage?

The answers matter because changes in the news historically have accompanied shifts in the power of the press and of journalists (Barnhurst & Nerone, 2001). A century ago news work was an industrial occupation, a form of piecework paid for by the line, and news workers (with few exceptions) had low status compared with politicians (Weber, 1921/1958). Each day's newspaper published hundreds of brief items, with little differentiation among them and often without much discernible impact. In 2001, journalism has become a salaried profession that requires a college degree and confers a status equal to or surpassing that of a politician. The new, long-form journalism of explanation has helped advance the role of journalists, who have become analysts who pass judgment on political as well as other events. Political scientists have argued that journalism has become a political institution (Sparrow, 1999; Cook, 1998; Iyengar & Reeves, 1997), but it remains unclear whether the emergence of the World Wide Web will expand the interpretative role for journalists or shift their focus back to local stories for ordinary people.

#### *Studies of Online News Sites*

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). The result, he wrote, “will be a change in the narrative form currently accepted without thought by the contemporary news writer and editor” (p. 129). News written to convey the five Ws (which originated, Koch notes, in the nineteenth century with Rudyard Kipling) emphasizes what happened, what Koch calls the journalistic or

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boundary event: “Information at this level of the boundary is naïve, without interpretation” (p. 130). The only interpretation it allows usually comes in quotations from official sources, and Koch faults journalists for acting as transcribers of official statements, or worse, making confused statements by officials seem coherent and authoritative. He argues that a wealth of online information sources will allow reporters to change news in two ways. By supplying more background, drawing, for example, on the archive of previously published news, reporters can transform their narratives “from the ephemeral or trivial to the contextual story” (p. 134). By expanding the temporal and geographic purview, reporters can expand what Koch calls the scale or focus of news: “The death of an overweight man during surgery becomes, in this manner, a part of the mosaic of anesthetic misapplication and an element in the debate over medical insurance, tort reform, or physician review” (p. 143).

In sum, Koch predicted that the advent of electronic databases and online access to newspaper, magazine, newsletter, and journal archives, as well as other published documents, would redefine news. This process would leave behind the old five Ws of event reporting, in favor of analytical and contextual narratives encompassing broader geographical domains.

A 1995 survey found that only 17 percent of newspapers had an online edition (although 52 percent had plans to begin publishing electronically; see Ross, 1998, Fig. 10.11, p. 154).<sup>1</sup> However, most reporters were already beginning to use online information (47 percent at least weekly and 30 percent less frequently; see Ross, 1998, Fig. 10.1, p. 146). The respondents used the Internet for a full range of reporting activities: research and reference (66 percent), downloading data (57 percent), e-mailing sources (57 percent), reading publications (45 percent), finding experts (41 percent), consulting press releases (26 percent), and gathering images (21 percent; see Ross, 1998, Fig. 10.5, p. 149).

A few years later, when estimates of the number of Internet users rose to nearly 10 million worldwide, Jon Katz asked “whether papers will finally accept reality and radically change, or whether they prefer to die” (1997, p. 44). Although he applauded the usefulness of newsprint, the sense of place found in local coverage, and the factual reliability of professional reporting, he called for a “journalism radically rearranged to become . . . better written, more sophisticated” (p. 68). He did not specify how the writing should be better, but he did suggest the importance of “the analysis and context of the stories we all heard about on TV the night before” (p. 68) and concluded: “For history, significance and context, you want a newspaper with a squadron of experienced Washington reporters” (p. 69).

Christopher Harper, however, in an essay 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 achieved more when she began writing more complex stories, such as her analysis of a murder and police investigation, “Who Killed Stacey Frobel?” While writing the story (the text appeared both in print and online), she compiled “a chronology of events, a list of the people involved in the crime and investigation, and a variety of background stories” (pp. 77–78). Her work stayed longer on the Internet site and got more readers involved.

Harper noted in 1998 that “digital journalism remains in its infancy, and there are growing pains” including the fear that the electronic edition may replace print. The addition of news to the Internet not only loomed large as a threat; it also built expectations for a revision of reporting and writing news stories. Ross, in his discussion of the online technology and sources survey, reported in 1998 that few Internet editions were allowed to scoop their print edition, and that few were “doing much original reporting on their Web sites.” He asked rhetorically, “And what about new storytelling techniques?” (1998, p. 156).

The Internet has come to occupy a more prominent place in the journalist’s imaginium, as more newspapers and audience members move online. In her analysis of databases on newspaper Web editions 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 (2001, pp. 179–85, see Tables 9.1 and 9.3). Surveys indicate that as of 2000, one in three U.S. Americans were going online for news at least weekly (up from one in five in 1998; see Norris, 2001, p. 176). Measurements of Internet traffic indicate that U.S. users are spending more time online but visiting a narrower range of sites.<sup>2</sup> Although thousands of Web sites contain information on any given topic, only a handful of sites account for the bulk of traffic. Users seeking news are among the most concentrated. Three old-media-related sites — MSNBC, CNN, and the *New York Times* — account for three-quarters of news traffic online for U.S. 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 percent, ranging from 21.5 percent to 54.8 percent, with no clear pattern related to circulation; see Singer, 2001, pp. 71–73). Publishers withheld information from the Internet 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

<sup>2</sup>See, for example, the report by Amy Harmon, “Exploration of World Wide Web Tilts from Ecclectic to Mundane,” in the *New York Times*, Sunday, August 26, 2001, pp. 1, 18

<sup>1</sup>Page numbers are provided for statistics quoted from previous studies.

publication. The text of the story was usually identical in both venues (with at most a change in headline and the online 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 online, compared to the print editions. Finally, the Web sites had fewer images (18 percent, compared to 48 percent of print stories that ran with artwork; see Singer, 2001, p. 76).

A descriptive study of electronic editions from other U.S. regions and market conditions found that newspapers did not appear to reinvent themselves online (Barnhurst, 2002). Instead, the Web versions reproduced the substance of their print editions, in a way that related similarly to readers. Reaching stories online involved a process of multiple screen jumps and scrolls, and only a few stories had added features, such as hyper-links to additional information, images, or interactive resources. The online newspaper stories themselves differed very little from those printed in the originating newspapers, as the Colorado study found. The Internet versions usually did not add to, or change, the text of the stories, and their visual presentation was spare, especially compared to print, which had a richer typographical range and presented many more images. Unlike the Colorado sites, other newspapers, including those from larger markets, place all their content online, with very few exceptions. The study concluded that print publishers were using their Internet presence as a low-cost place holder, to guard their U.S. market position and erect a barrier to the entry of geographical competitors. Research on media economics (e.g., Chyi & Sylvie, 2001) argues that although the Internet is a global medium, the content of newspapers online tends to focus on local markets. One consequence of their market strategy was that alternative media also faced those same barriers to entering the news arena, narrowing the range of ideological options.

Overall the research 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.

#### *Research on the New Long Journalism*

For some time, scholars have observed the changing definition of news. Michael Schudson (1982) noted a trend away from transcribing official events in newspaper coverage of the State of the Union address, since the mid-nineteenth century. Thomas E. Patterson (1993) measured a trend away from descriptive campaign coverage in the *New York Times*, from the 1960s to the 1990s. Daniel Hallin's (1992) study of the shrinking sound-bite on television news pointed to (but did not measure) the growth of analysis within news content, and Kiku Adatto (1993) did the same within news formats. A content analysis of the *New York Times* and the Los Angeles

*Times* found that the vocabulary of news became more quantitative and focused on change, while shifting away from human relationships and toward professionals, experts, and officials (Danielson & Lasorsa, 1998). Recently scholars have found that news media no longer transmit information but instead interpret that information (e.g., Freeman, 2000). Patterson measured broadcast election coverage and found that "the journalist has become a direct participant" who is "no longer constrained by a need to place newsmakers' words and actions at the center of the story" (Patterson, 2000, p. 14). Journalists also have noted the change. Bill Kovach and Tom Rosenstiel observe that "journalists now spend more time looking for something to add to the existing news, usually interpretation. . . ." (2001, p. 77).

The new long journalism project has conducted a series of studies that track the redefinition of news. The first two examined the press over the course of the twentieth century. News stories in U.S. newspapers shifted emphasis to social problems and interpretations (Barnhurst & Mutz, 1997); the stories grew longer, focused away from specific locations to broader regions, emphasized more history, and cited more groups, officials, and outside sources, while naming fewer ordinary people. A parallel study of newspaper format confirmed the trend away from pages filled with many small news items (Barnhurst & Nerone, 1991), and toward pages on which journalists act as experts who order and prioritize news, giving readers a spatial array or map that explains the relative import of events.

Two additional studies identified a related pattern in television news. Content analysis of network newscasts during the presidential campaigns of the past 30 years found that while political coverage shrank overall, journalists tended to hold their ground as politicians' speech diminished, and the journalists also offered a growing number of judgments and evaluations about the candidates and election (Steele & Barnhurst, 1996). The form of television news became more entertaining and attractive, playing the journalists' own images larger and more frequently on screen, while reducing politicians to brief image-bites (Barnhurst & Steele, 1997). Journalists attributed these changes to business competition.

Other studies examined a news venue which, in theory, has been less subject to commercial pressures: National Public Radio. A content analysis of political coverage on "All Things Considered" and "Morning Edition" found that since 1980 NPR news did not escape the general direction of other American reporting, becoming more interpretative and less neutral in tone, while growing longer (Barnhurst, 2002 forthcoming). Journalists began to play a new role as expert sources, and they shifted from recounting to evaluating events. To discover how journalists exercised their influence over political discussion, a sixth study in the project analyzed NPR coverage of a publicly emerging minority, the lesbian, gay, bisexual, and transgendered communities, during autumn presidential election seasons (Barnhurst, under review). Reports on the communities increased in length and number, and the tone of reporting became more positive. Yet as gay-related news be-

came more routine and professional, attention to ordinary citizens declined in favor of officialdom, and coverage became more polarized, placing journalists as the arbiters between mainstream gay groups and extreme right-wing attackers.

The trends across media outlets and over the long term have been very strong: toward more analytical and explanatory news stories, with more reliance on official and expert sources, more references to past and future events, and more attention to wider geographical areas. The growth of the long journalism has placed the news media closer to the center of political life, with reporters acting as intermediaries who not only transmit information about events but interpret and judge them. A next step is to discover whether Internet technology has encouraged these trends.

### *The Study*

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. Such an assessment would be premature. Anecdotal evidence suggests that the Internet has begun to affect how journalists think about news, which events they cover, and how they recount them. But has the definition of news been altered? Have changes occurred in the five Ws of news writing and reporting? A precise measurement of those changes depends on gathering a sample for which comparable longitudinal data exists, taken at regular intervals to allow comparisons between the content now appearing online and the historical shifts in news content. This study is designed to provide those measurements.

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.<sup>2</sup> Although it also serves a local market, its reach is both national and international. 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. The newspaper and its Internet version tend to operate as a dominant voice in the Midwest, but with limited influence elsewhere in the country. The Portland *Oregonian*, operated as part of the Newhouse chain, under the ownership of 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 (Barnhurst, 2001). 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. 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 newspaper), which includes a full range of content found in other city-based portals. The *Oregonian*, however, 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 online site from established print newspapers.

Historical content analysis that considers the presentation and organization of news coverage along with the content of stories is not currently possible for Web news. The Internet is too new to allow long-range content analysis, and newspapers do not archive their previous content in the same form as it first appeared online. The three news sites selected for this study are operated by the same newspapers that were examined in a content analysis of a full century of news stories (Barnhurst & Mutz, 1997), which provides points of comparison. The earlier study analyzed stories on employment, crimes, and accidents, three categories that were general enough to include a range of content that defines journalism but were specific enough to allow reliable coding of stories. Other studies of the new long journalism focused on politics, and for this study, political reports are included along with the categories (and following the definitions) from the previous study.

A purposive sample of stories was selected during three consecutive weeks in late July 2001.<sup>3</sup> The time period was selected to avoid the predictable distortions of major holidays (such as Independence Day) and other regularly occurring major events (such as elections). During mid-July, news begins to slow down, especially political reporting, in anticipation of the August legislative recesses and vacation periods. During relatively slow news periods, reporters have the greatest freedom in the selection of stories and may write some stories longer than during heavier news periods. The sample period was chosen to allow a generous assessment of reporters' and editors' content decisions.

For each topic, an exhaustive search was conducted for each newspaper site, beginning from the home page and then on through the secondary and

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<sup>3</sup>A non-probability sample was chosen not only because archives are incomensurable to each day's news site on the Web during the date of posting, but also because collecting such a sample would have imposed substantial delays on the research (see Riffe, Lacy & Fico, 1998). A previous study of Internet newspapers found that probability sampling introduced errors in coding related to sequence and characterizing the production of stories (Singer, 2001).

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 main news pages (not surprisingly, such stories do turn up occasionally). After four hours, the site was again checked for changes, additions, and updates.

The selection of stories followed the protocol established in the previous study (see Barnhurst & Mutz, 1997). 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 44 distinct observations, many of which required counting multiple observed occurrences. 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 wire service or staff produced), its location within the Internet site, and the types of links and images that ran along with the text of the story.

To measure the content, coders used the procedures of the previous study (see Barnhurst & Mutz, 1997). They counted the number of individuals and groups appearing or described in the stories and characterized the roles that individuals played. They counted the number of separate events included in the story, along with the mentions of past and future periods and of changes over time. They also counted the locations reported in the story (including street address, city or town, state, region, U.S. national, and foreign or international). And they counted the number of times the story explicitly told how events occurred or should occur (providing contexts, explanations, implications, or recommendations) and why (referring to causes, underlying problems, or collective social issues or themes).

Besides these descriptive (ratio) observations, the coders rated each story on several subjective characteristics. They rated the length of the story (on a scale from 1 for very brief to 5 for very long), a technique that had previously produced consistent results across media (such as paper and microfilm for newspapers, see Barnhurst, forthcoming). They also rated the emphasis of the story (on a scale from 1 for the most event-centered reporting to 10 for the most general news analysis) and the tone of the story (on a scale from 1 for negative to 5 for positive, with 3 for mixed and ambiguous as well as neutral). Tone was not included in the previous study but has been measured widely in other political communication research (e.g., Patterson, 1993; Just, et al, 1996).

After the initial coder processed 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) and ranged in predictable ways (from .98 to .76), with higher coefficients for simple

descriptive observations and with lower but adequate coefficients for the more subjective ratings.

The tabulated results were subjected to tests of statistical significance (analysis of variance, with post hoc Sheffe tests). As the results demonstrate, the major findings in this study proved consistent across news topics and across newspaper sites, usually following trends established in the previous research. 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. A few results went contrary to previous trends, and so these new measurements were checked. E-mail correspondence and interviews were conducted with journalists, including staff members from the three newspapers, who described their experiences with the changes that the data reflect and with their newspapers' online editions.

### Results

The greatest contrast between print and Internet editions was the flow of wire-service content online. These might be attractive to a news junkie, but other readers would likely skip them. Many different versions of the same event can appear on the same day's site: one generated by the newspaper staff, one by the Associated Press, one by Reuters, and so forth, as well as other duplications due to posting errors, dateline errors, and the like. The many versions provide variation without real difference, with the same events rendered in very similar (or identical) ways.

To examine how the qualities of the new long journalism have fared as newspapers put their content online, only staff-produced stories are included in this analysis (the effects of this limitation are pointed out in the analysis). Using a subsample had the greatest impact on results for the *New York Times*, which runs an overwhelming share of wire service content integrated into its Internet site. The repetitions interfere with a comparison of the newspaper's current online content to its history of content decisions in print, where duplication is usually avoided. In the trade-off between depicting the online news and comparing the newspaper's content to its historical output, it seemed best to set aside wire-service and duplicate stories, which muddle the depiction of the news organizations' own content.

Overall, several measurements followed the expected trends, including the length and emphasis of reports and their inclusion of groups and individuals, as well as the roles they played in the news events. But other measurements either greatly surpassed previous trends or reversed them entirely, including the number of events, time periods, and places referred to in the news reports.

### Length, Emphasis & Tone

The first and most simple question is whether the news in 2001 has grown longer, following the trend established over the previous century. On a scale from 1 to 5, news in these newspapers grew from just under 2 in 1895 to just above 3 in 1995 (Barnhurst & Mutz, 1997, p. 32). By 2001, news sto-

ries had grown a bit more, to just above 3.5 on the scale (Table 1). The increase matched an earlier jump in the 1970s and continued the trend that had leveled off between 1974 and 1994. (The previous study of the print edition included some wire stories, of course, which tend to be shorter and less analytical, with fewer explanations of how and why events occur.)

Table 1  
Length, Emphasis & Tone

Length as the mean rating of articles on a scale from 1 (the shortest) to 5 (the longest). Emphasis as the mean rating of articles on a scale from 1 (the most event centered) to 10 (the most general news analysis). Explanations as the mean number of times articles explained how and why. Tone as the mean rating of articles on a scale from 1 (the most negative) to 5 (the most positive).

	N †	Length	Emphas.	Explanations		Tone
				How	Why	
Overall	313	3.55	4.03	5.53	3.42	2.83
<b>Site</b>		***	**	*		*
A. New York Times	72	4.17 <sup>BC</sup>	4.19	4.83	3.64	2.68
B. Chicago Tribune	84	3.54	4.37 <sup>C</sup>	6.16 <sup>A</sup>	3.45	2.69
C. Portland Oregonian	157	3.27	3.78	5.50	3.30	2.98
<b>Topic</b>			***		**	
A. Politics	89	3.82	4.47 <sup>CD</sup>	5.61	3.81 <sup>C</sup>	2.73
B. Employment	77	3.62	4.38 <sup>C</sup>	5.60	3.73 <sup>C</sup>	2.90
C. Crime	77	3.25	3.63	5.65	2.55	2.73
D. Accidents	70	3.46	3.70	5.21	3.54	3.01

†The numbers of cases for each site for topic are the same in all the subsequent tables.

One way analysis of variance: \*\*\* =  $p < .001$ , \*\* =  $p < .01$ , \* =  $p < .05$

ABCD post hoc Sheffe tests with significance level of at least .05

The three newspapers lined up predictably, with the *Times* running the longest (and differing significantly from the other two,  $F = 11.09$ )<sup>4</sup> and the *Oregonian* the shortest, a pattern that held to some degree for all but one year in the previous study. Until the 1970s, accident stories had consistently run the shortest, often well below the length of crime stories, which came next in order of length every year. Then in the 1990s, accident stories grew longer, and crime stories dropped slightly below them, a direction that continues in this data. Employment stories always ran longer in previous years,

<sup>4</sup>For all tests reported here, the degrees of freedom are (2, 312).

just as they did in 2001. The longest stories in this study deal with politics, a topic that was not included in the previous study. The spread between the longest and shortest topics is sensible but very small (and does not quite reach statistical significance,  $F = 2.62$ ,  $p = .051$ ).

A more complicated question is whether the news had grown more analytical, another trend established during the previous century. Measured on a scale with 1 indicating the most event-centered coverage and 10 indicating the most general news analysis, the emphasis grew more analytical, starting below 2 in 1894 and peaking at 3 in 1974, before dropping back somewhat (Barnhurst & Mutz, 1997, p. 33). By 2001, the tendency had rebounded, reaching 4 on the scale (Table 1). Even so, it should be noted that reporting in these newspapers has always been in the lower half of the scale (other media, such as National Public Radio news, go even higher on this measure; see Barnhurst, forthcoming).

The four topics spread themselves out predictably (and significantly,  $F = 6.96$ ), with stories about politics and employment including markedly more analysis than those about crime and accidents (in post hoc tests). The differences among news sites are significant as well ( $F = 4.84$ ). Results for the *Chicago Tribune* site are statistically different from the *Oregonian* (in post hoc tests), but not from the *Times*. The articles in the sample came generally from the news columns, not the opinion or editorial pages. In the entire sample, the only article explicitly labeled “News Analysis” was from the *Times*.

The news has continued to become longer and more analytical. The two are highly correlated, not only logically — adding analysis to a news story would require more words — but statistically (the Pearson correlation coefficient between length and emphasis is .64,  $p < .001$ , for the 313 cases). To give a picture of the range from shortest to longest and from most event-centered to most analysis-centered, consider two examples, a political report from the *Times* and a crime report from the *Oregonian*.

The *Times* article, “Cities and Their Suburbs Are Seen Growing as Units” (July 10, 2001, national page),<sup>5</sup> describes a report released by the United States Conference of Mayors. Rated high on the scale of emphasis (an 8), it explains the role of cities in creating jobs during the 1990s, reviews the urban renaissance beginning in the 1980s, and cites statistics on the gross metropolitan product as a growing share of national wealth and industrial output. It indicates that the mayors are about to mount a campaign “to pressure state and federal governments to invest more resources into

<sup>5</sup>Articles drawn from the sample as illustrations are cited parenthetically (by title, publication, date, and link location) in the text of this study and not in the bibliography. They can be retrieved from the archives using a search for the title and date, except those from the *Oregonian*, which archives only the most recent 30 days (for these, a Contact Us form is available on the current Web edition). The URLs for the sites are as follows: NYTimes.com <http://search.nytimes.com/search/> and ChicagoTribune.com <http://www.chicagotribune.com/search/chiadvancedsearch.htmlstory>

metropolitan areas.” Geographically, the story includes New York, Los Angeles, Chicago, Denver, New Orleans, and Minneapolis, as well as Akron, Ohio, Arlington, Texas, Lexington, Mass., Mesa, Ariz., and Portland, Oregon. It compares the economies of several large U.S. cities to those of Taiwan, Australia, and South Korea, and it reports the results from trade offices that U.S. cities have established in London and in China and Germany. To talk about the problems of urban decay and suburban sprawl, the story draws on research from an economic forecasting company and quotes two outside sources, an urban analyst with the Fannie Mae Foundation and the director of the Brookings Institution Center on Urban and Metropolitan Policy. The story ran with a photo of the president of the Conference of Mayors and with links to “Census Maps, Charts and Interactive Features,” to “Join a Discussion on The Economy,” and to the U.S. Census Bureau. All this took space, and the story rated among the longest in the sample (a 5).

At the other extreme, an *Oregonian* story, “Sex Offender Alert” (July 24, 2001, local page), lists the name, age, physical description, address, and criminal record of a man convicted of sodomy several times, and it reports that he “is in compliance with the terms of his supervision,” then identifies his probation officer and provides contact information. The story received the lowest score for emphasis (1) and the shortest for length (1), running a single paragraph of text without images or links. Crime reports were the briefest and least analytical on the whole, but similar coverage ran for some political stories, such as the election list in an *Oregonian* report, “Candidates File in Drove for Local Agencies” (July 18, 2001, local page).

An indicator of the kinds of explanations underlying news analysis can be found in the ways journalists handled the how and why of their stories (see Table 1). To explain how events occur, journalists describe the relationship among events and between events and the context, often drawing out the implications of the events or making recommendations about how to respond. For example, the *Times* report on cities explains how the mayors’ call for more federal investment in cities is related to the context of urban sprawl and congestion and to the declining schools that accompanied economic growth. There were statistical differences in the frequency of explaining how in the sample ( $F = 3.65$ ), and the biggest difference among the news sites, between the *Tribune* and the *Times*, was significant (in post hoc tests).

To explain why events occur, journalists describe the causes, problems, and collective social issues or themes behind the news. The *Times* report on cities, for example, explains why the mayors have issued their appeal by arguing that metropolitan areas are not usually under a single or unified government and “do not have strong advocates” elsewhere in the U.S. system of government. The topics included in the sample were significantly different in the frequency of reporting why events occurred ( $F = 4.21$ ). Crime was especially low in explanations of why, differing significantly from politics and employment stories (in post hoc tests).

Measurements of tone were not taken in the long-term newspaper study,

but an analysis of National Public Radio coverage found that reports overall remained quite close to neutral during election years, from 1980 through 2000 (Barnhurst, forthcoming). The tone leaned slightly in the positive direction in the 1980s and then in the next decade slipped somewhat onto the negative side. Political coverage was generally more negative compared to all topics covered, beginning in 1980 just below the neutral point and declining somewhat more into the negative zone by 2000. In the election-year sample, the preponderance of stories during the Carter-Reagan campaign in 1980 were neutral, but by the 1992 campaign negative stories accounted for the largest share of the coverage.

The results for the three newspaper Internet sites in 2001 were substantially more negative (see Table 1). Overall, the content rated below the neutral point (which is at 3.0 on the 1–5 scale), more negative than any year except 1996 for NPR coverage. There was significant variance among the news sites ( $F = 3.59$ ), with the *Oregonian* slightly in the negative zone and the *Times* substantially more negative (but no differences were statistically significant in post hoc tests). Comparing topics, politics reports were more negative, just as in the case of NPR news. They rated the same as crime. Employment reports were not as negative, and accident reports were, surprisingly, the only topic to be neutral (or a hair more positive than neutral), although these differences were slight (and not significant in post hoc tests).

As reporting moved toward longer stories with more analysis and explanation, what changes occurred in the other components of reporting: the who, what, when, and where? The remainder of the results deal with these components.

### Who

In previous research, the new long journalism had a particular impact on who would appear in the news. The number of individuals named in stories declined, and being identified in the news increasingly required a description, usually of one’s group affiliations. More and more groups also appeared independently. The roles that individuals played began to shift as well, with fewer of them appearing as main actors in events, so that, instead, more voices heard in the news were those of officials and outside sources (Table 2).

The number of named individuals, which had fallen from more than 1 per story in 1894 to below .04 in 1994 (Barnhurst & Mutz, 1997, p. 37), continued to dwindle; it was a negligible element in the 2001 reports. Referring to individuals by description, not by name, occurred in three out of four stories. There were significant differences among the topics ( $F = 8.09$ ), with politics differing markedly from crime and accident stories, and employment differing from crime stories (in post hoc tests). In other words, crime stories were most likely to describe an actors (perpetrators) or officials without naming them, and politics stories were the least likely to do so.

Table 2  
Who

Mean number of times articles mentioned people and groups, and their roles in the news.

	Individuals		Groups	Roles	Actors, victims	Officials	Outside sources
	Named	Describe Both					
Overall	0.01	0.75	4.98	8.11	2.79	2.46	0.40
<b>Site</b>			***				**
A. Times	0.03	0.64	6.25 <sup>C</sup>	8.64	2.97	3.24	0.65 <sup>C</sup>
B. Tribune	0.01	0.82	5.42	8.33	3.01	2.62	0.45
C. Oregonian	0.00	0.76	4.17	7.75	2.58	2.03	0.25
<b>Topic</b>		***	**	***	***	***	**
A. Politics	0.02	0.38	6.33 <sup>BC</sup>	9.31 <sup>CD</sup>	1.46	5.03 <sup>BCD</sup>	0.24
B. Employment	0.01	0.52	4.34	9.34 <sup>C</sup>	2.95 <sup>A</sup>	1.13	0.68 <sup>A</sup>
C. Crime	0.00	1.16 <sup>AB</sup>	4.49	6.39	3.58 <sup>A</sup>	1.77	0.34
D. Accidents	0.00	1.01 <sup>A</sup>	4.53	7.11	3.41 <sup>A</sup>	1.43	0.36

One way analysis of variance: \*\*\* =  $p < .001$ , \*\* =  $p < .01$ , \* =  $p < .05$

ABCD post hoc Scheffe tests with significance level of at least .05

The standard that has emerged for identifying people is by naming and describing them; a typical report included five people presented in this way. The news sites differed significantly ( $F = 7.18$ ), with the *Times* the most likely and the *Oregonian* the least likely to follow the standard (a difference that was significant in post hoc tests). Topics also differed ( $F = 4.58$ ), with stories on politics significantly higher than stories on crime or employment (in post hoc tests). In short, in the most analytical news site and for the topics most amenable to analysis, journalists often identified people using name-plus-description formula. (The pattern is so settled that it may appear strange even to remark upon it. Readers, like journalists, now expect to learn a person's group affiliation, so that not providing it requires an explanation.)

Although individuals continued to appear in the news, groups came to outnumber them, growing from 3 per story in 1894 and peaking at almost 6 in 1974 (Barnhurst & Mutz, 1997, p. 37). In this sample, the number is even larger, so that on average a report mentions more than 8 groups. The differences among topics were statistically significant ( $F = 7.84$ ), with politics again the most likely to mention groups, especially compared to crime and accident stories. Group mentions in reports on employment were also significantly higher than in crime reports (in post hoc tests).

A *Times* article on the guest worker program, "Calls for Change in

Ancient Job of Shepherding [sic]" (July 11, 2001, national page), turns ordinary people into a writer's trope, using one of the distinctive markers of the new long journalism. The article begins with several paragraphs about a shepherd in the Mojave Desert, and when the anecdote closes, the writer states, "The man, who would not let his name be used for fear of angering his employer, is typical of shepherds in the United States, about 800 of whom toil in California." The article then describes the geographic origins of the workers, the lack of change in shepherding, the work as a share of the labor pool, the regulation of wages, proposed legislation in California and its opposition by the ranching lobby, the industry's balance sheet, and the activities of a labor advocacy group and a legal aid group on behalf of the legislation. In other words, the opening vignette about an individual is window dressing for the reporter's real work, to cover the activities of organized groups. Only at the end of the long article (it rated a 4 out of 5 for length) does the writer again introduce individuals who are actors, not official or expert sources. After a paragraph describing shepherds in Fresno and Kern Counties, California, the article returns to the man from the opening anecdote. By contrast, the report included 10 groups and 5 other individuals, all of them politicians or experts. The story contained more than the average number of explanations (of how and why) and was rated very analytical (receiving a 7 on the 1-10 emphasis scale).

*What & When*

Previous research indicates that the new long journalism changed which events were reported (the what) and within which frameworks of time (the when). There was a significant drop in the number of different events included in each story, with the biggest decline occurring from the high in 1894 (1.7 for the *Times*) to a fairly consistent low (of about 1.1) thereafter (Barnhurst & Mutz, 1997, p. 41). Although the stories contained fewer current events, they referred to an increasing number of other points in time, past and future as well as changes over time (from about 1.1 in 1894 to about 1.7 in 1994; see p. 42). For reporters to do news analysis they must present current events in relation to history, with changes leading into what can be predicted for the future.

In 2001 content from the three news sites, the average number of events included in a story jumped to a new high (Table 3). Initially the hypothesis about the new long journalism predicted such an increase, expecting that analytical news would draw more connections among events (Barnhurst, 1991). In the previous study, round-ups of related events after the 1890s rarely occurred within one report, but an examination of reports in the 2001 sample turned up quite a few in the *Oregonian*. Most of the stories on the site were limited to a single event, but 15 percent of the *Oregonian* stories contained more than three distinct but topically related current events (only one other round-up was found in the staff-produced subsample, and it was from the *Times*). However, the differences among the three news sites

were small (and not statistically significant). The round-ups increased the mean in what was otherwise a one-event-per-story rule at the *Oregonian*, but at the other news sites, the typical story included two events. The larger number of events per story applied across the board for topics as well; although there was significant variation, no topic differed dramatically (in post hoc tests).

Table 3  
What & When

Mean number of events included in articles and mean number of references to time periods.

	What	When		Change over time	All points in time
	Events	Past	Future		
Overall	1.90	2.31	2.21	0.20	6.42
<b>Site</b>		***	**		***
A. New York Times	2.14	2.99 <sup>C</sup>	2.83 <sup>C</sup>	0.29	7.89 <sup>BC</sup>
B. Chicago Tribune	1.82	2.50	2.21	0.27	6.54
C. Portland Oregonian	1.84	1.90	1.92	0.13	5.66
<b>Topic</b>	*		***	*	***
A. Politics	1.81	2.40	3.08 <sup>CD</sup>	0.06	7.29 <sup>D</sup>
B. Employment	1.74	2.47	2.90 <sup>CD</sup>	0.31	7.10 <sup>D</sup>
C. Crime	2.32	2.42	1.23	0.36	5.97
D. Accidents	1.74	1.90	1.43	0.10	5.06

One way analysis of variance: \*\*\* =  $p < .001$ , \*\* =  $p < .01$ , \* =  $p < .05$

<sup>BCD</sup> post hoc Sheffe tests with significance level of at least .05

The news stories also included a very large number of references to other periods of time. Besides describing two current events, the typical story also referred more than twice to both previous and upcoming time periods. There were differences in references to the past ( $F = 8.09$ ) and to the future ( $F = 5.77$ ), and in both cases the *Times* differed significantly from the *Oregonian* (in post hoc tests). A report on the connections between California congressman Gary Condit and the disappearance of the intern Chandra Levy ("Lawmaker Promises Full Aid, Even DNA Test, in Intern Case," NYTimes.com, July 10, 2001, national page) contains eight references to events in the past, including a blow-by-blow account of the internship and the disappearance, police investigation, and media coverage. The recounting itself lends substance and weight to what otherwise would be a routine missing person case. In the data, the occasional inclusion of changes

over time brings the total for references to time in the articles to an all-time high, and predictably the differences were again significant ( $F = 10.30$ ), with the *Times* going well beyond either of the other news sites.

By topic, references to the past were quite uniform, but there were significant differences in references to the future ( $F = 24.62$ ). In articles about the topics that journalists were most likely to analyze, politics and employment, journalists referred to the future more than twice as frequently as they did when reporting crime or accidents. Examples of these predictions were common in the *Times*. A jobs-related story, "Banks Give Polaroid Time to Renegotiate Millions in Loans" (July 12, 2001, business page), was full of predictions about the company's plans and "strategic alternatives." It included possible reactions of bondholders, and crystal ball gazing by analysts, along with the expectation of 3,000 job cuts (35 percent of its work force). Likewise, a political story, "Bush Drug Plan Calls for Using Discount Cards" (July 11, 2001, home page), previewed a future policy announcement along with the President's hopes and intentions, and the expected reactions in Congress. The topics also varied somewhat in discussing changes over time (although post hoc comparisons between pairs of topics revealed none significant at the .05 level). Finally, the cumulative differences among topics were significant ( $F = 6.58$ ), with the most dramatic emerging between the topics most favored for reporters' analysis — politics and employment — as compared to the coverage of accidents (in post hoc tests).

The dramatic increase in the what and when in the current data go beyond what the previous study would have projected. It is possible that the change is attributable to the Internet, but the data themselves do not indicate what caused the change.

#### Where

The long-term trend has been to encompass increasingly large geographic domains in news stories. The previous study showed the closest location — a street address — declining between 1934 and 1994 (from a high of 1.4 to a low of 0.8), and the most distant — foreign nations — almost tripling (from 0.1 in 1894 to 0.3 in 1994, see Barnhurst & Mutz, 1997, p. 36). In the 2001 news sites, both these trends continued (Table 4).

On average, fewer than half the articles referred to street addresses, and more than a third of the articles referred to other countries. In other words, what was once a large difference between how often reporters included these two geographic domains in stories converged by 2001. There were still more street locations than foreign locations in the news, but overall the difference had become slight.

At the nearest and farthest extremes, the differences between news sites were significant ( $F = 5.40$  for street address, 5.99 for city, 2.92 for region, 17.98 for nation, and 3.98 for foreign), and post hoc tests indicate a strong emphasis on local coverage in the *Oregonian* and on national and international coverage in the *Times*. The geographic extremes were also where signifi-

cant differences turned up among topics (F = 3.10 for street address, 3.46 for city, 8.00 for nation, and 4.20 for foreign). The crime topic was not surprisingly highest in references to street addresses (especially compared to employment) and to towns and cities (as compared to politics). Employment is the topic likely to be reported with the most references to national or international venues, and politics also had a significantly higher average number of references to other countries (according to post hoc tests).

Table 4  
Where

Locations, from the closest and most distant, as the mean number of references in articles. Mean distance as indexed on a scale with low scores for events at street addresses, followed by towns and cities, states, regions, and nations.

	Locations						Distance
	Street Address	Town or city	State	Region	Nation	Other nation	
Overall	0.44	0.98	0.40	0.03	0.36	0.37	3.14
<b>Site</b>	**	**		*	***	*	***
A. Times	0.15	0.54	0.36	0.07	0.58 <sup>C</sup>	0.68 <sup>BC</sup>	4.07 <sup>BC</sup>
B. Tribune	0.21	0.95	0.35	0.02	0.45 <sup>C</sup>	0.24	3.40 <sup>C</sup>
C. Oregonian	0.68 <sup>AB</sup>	1.20 <sup>A</sup>	0.45	0.01	0.22	0.30	2.58
<b>Topic</b>	*	*			***	**	***
A. Politics	0.34	0.78	0.31	0.03	0.37	0.43 <sup>CD</sup>	3.45 <sup>CD</sup>
B. Employment	0.16	0.84	0.42	0.03	0.57 <sup>CD</sup>	0.69 <sup>CD</sup>	3.81 <sup>CD</sup>
C. Crime	0.79 <sup>B</sup>	1.40 <sup>A</sup>	0.43	0.01	0.23	0.22	2.62
D. Accidents	0.47	0.94	0.46	0.04	0.27	0.11	2.59

One way analysis of variance. \*\*\* = p < .001, \*\* = p < .01, \* = p < .05

ABCD post hoc Sheffe tests with significance level of at least .05

The results reveal a contradiction between what readers experience and what coverage reflects. Employment is experienced as personal and local — by individual people working at street addresses — but most job-related stories were covered from a business perspective. The attention to the most distant locations is a particularly interesting indicator of the growing emphasis on analysis in the news. One of the infrequent articles on organized labor, which appeared in the *Times* (“The A.F.L.-C.I.O. Organizes in Cambodia,” July 12, 2001, business page), was reported from Phnom Penh. The article uses an opening vignette (the so-called anecdotal lead) to introduce “perhaps the most contentious issue on the international trade agenda today: establishing a floor under labor conditions in developing countries.” It

mentions labor organizing in Texas and policy debates in Washington (and the World Trade Organization) and refers to China, Vietnam, Taiwan, Hong Kong, Singapore and Mexico, as well as the headquarters of Nike, the Gap, Levi Strauss, and Sears Roebuck. The highly analytical story (an 8 on the scale for emphasis) was also lengthy (rated 5 on the scale for length), requiring readers to download another page to read the second half, and it included all the other markers of the new long journalism (a focus on 14 groups, on explaining how and why, 5 times each, and on other time periods, with 10 references divided equally between the past and future).

Despite the continuation of some trends within the location categories, the index of overall distance in the reports took a startling reversal. The previous study constructed the index by weighting the more distant locations (and then dividing the sum of weighted scores by the sum of all references to location; for details see Barnhurst & Mutz, 1997, footnote 4), and found that the news moved from just below 1 in 1894 to above 6 in 1994 (p. 36). Using the same index, the coverage in the news sites for 2001 scored lower, below any previous measure (see Table 4).

The news sites differed dramatically and predictably on the distance index (F = 32.15), with the *Times* out-distancing the other two and the *Tribune* taking in a broader geographical perview than the *Oregonian* (in post hoc tests). The topics also differed significantly (F = 14.60) and predictably as well, with crime and accidents at the local extreme and politics and employment at the other (in post hoc tests). In part the lower distance score is due to the extreme local focus of the *Oregonian* sample. In the previous study, the *Oregonian* sample from the print editions included national and international coverage from the wire services (which do not appear on the newspaper site). Expanding the study to include political news, in which national coverage dominates, also made the *Oregonian* sample more local in contrast to the *Times* and *Tribune*, which use their own staffs to cover national politics. It seems unlikely that these sampling differences can explain a turnabout of this magnitude. Recent research found that some Internet newspaper sites had an unusually local focus (Singer, 2001), and these results may confirm that fact (if not the reasons the investigator used to explain it).

**Discussion**

In the key measures, the news produced by the three organizations continued to move toward the new long journalism of explanation. Stories continued to get longer, more than compensating for the lull after the 1970s. Their emphasis also continued to grow more analytical, although it must be reiterated that other news outlets exceed newspapers and their Internet sites in this measure. They continued to focus less on individuals as actors in events, and more on groups, experts and officialdom.

What does this mean? The changes in content reflect how journalists do their jobs, within the constraints of news organizations, and how the news industry conceives of its audience. The longer, more analytical stories are a

product of an idea or picture of news in which the journalist is a professional with access to hard-to-reach locations and to authoritative information; their principal responsibility is to provide expert explanation of how and why things happen. In this picture, the audience is un- or under-informed and must rely on news professionals to provide knowledgeable interpretations of events. The audience in this picture of news is passive, a recipient but less and less often a participant, requiring the intercession of groups and the intervention of experts, who are empowered to make judgments about whether what occurs will be good or bad for reader-viewer-citizens.

The dramatic shifts in other measures, however, suggest that something else is afoot. Two trends — the index of distance and the average number of events included in a news story — reversed themselves after a century of declines, and a third — references to different time periods and to changes over time — jumped well beyond the expected increases. Even after discounting the sampling differences between this replication and the previous study, these shifts appear strong. What can explain them? The Internet is not the cause in the sense usually proposed.

Journalists customarily assign technology an autonomous power. In the mid-20th century, the means of transmission supposedly gave television reporters an edge, allowing them to scoop newspapers routinely; print journalists had to start explaining news instead of merely reporting events, as a way to compete in the news arena (see Barnhurst & Mutz, 1997). But the Internet, as a means of transmission, has not returned that competitive edge to newspapers, at least not yet. As long as allowing the Web edition to scoop the print edition is a losing proposition financially — letting the free product compete with the profitable one — publishers will continue to invest as little in Web editions as necessary to prevent rival sites from competing directly. A previous study has shown that in fact very little of the technological potential of the Internet has been incorporated into the presentation of news, even on sites operated by rich and powerful newspapers (Barnhurst, 2002). In that study, news sites simply mounted most of the print edition content onto the Internet, adding very few links or interactive features. Smaller newspapers not held under chain ownership did not even include all their print content (Singer, 2001). In short, the supposed power of technology has not done anything itself to change the basic stuff of news, the text or story.

The technology did not operate directly on news, but journalists may have changed their routines in response to the idea of a powerful technology, employing its capabilities only to the extent needed to confirm that idea. In the case of the increases in events included in the average story and in references to other time periods, the concept of the link (not original to the Web) appears to have had an impact. As the Internet came into popular use, reporters developed a sense of the need to link events together, and they also gained increased access to networked information (Ross, 1998). The content of their stories began to reflect those linkages, including more events, more references to past events, more predictions of future events, and more discussions of change over time, linking past, present, and future.

Reporters did not do anything different for the Internet editions, but their understanding of the network and its popularity likely influenced them indirectly as they wrote print stories to be placed online (Marriott, 2001; Stone, 2001). The change happened suddenly between 1994 and 2001, the initial period of high interest in and growing use of the Internet. But the connection between news content and the Web is circumstantial and anecdotal; further research is needed to establish causation.

Journalists also took seriously the idea of the Internet as a power in the market. The study that found a heavier focus on local news online, compared to print, for several Colorado newspapers (Singer, 2001), explained the difference by citing costs: Staff-written material could be used at no additional expense, but wire services charge publishers for content appearing online. The shift toward local coverage is explained only partly by the costs involved. A more important factor was the fear of competition from the Internet. In the mid-1990s, newspaper owners, publishers, and editors were alarmed when city sites began to appear on the World Wide Web (Glass, 2001), especially when the software giant announced Microsoft Sidewalk. The system of localized Web pages was to provide information on community activities, government services, and retail businesses, including event listings, sports results, and advertisements. These are the stock in trade of local newspapers, whose profitability relies on their market dominance over local information such as classified advertising.

The return to local coverage arguably serves readers better, reversing the long movement of U.S. news away from events affecting the immediate lives of citizens. The drawing of linkages to a story's background and to related current events also serves readers better by providing more of the context that makes occurrences meaningful. In this sense, the influence of the Internet has been a healthy one for journalism. As Pippa Norris asserts, "Democratization is not the driving force behind the move of the news media into the digital world, but in the longer term it might well be the consequence" (2001, p. 185). The change does not itself correct the problem of unequal access to the Internet, which is highly skewed by race and social class.

Although they provide a partial corrective to the new long journalism, the changes do not reduce the role that journalists play as expert explainers. The news media have become a political institution (Cook, 1998; Iyengar & Reeves, 1997), and the content adjustments measured here are just one move in the strategic story of how news workers and news organizations respond to networked computer communications. The Internet has 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. These supply interactive and dialogic qualities (Sparrow, 1999), and they can and have become tools for citizens to circumvent the institutional power of the news media. Newspapers, as evidenced in their content, have a conflict-ridden relationship with the Internet, pushing forward by providing textual links between events, and covering local events

while resisting the investments required to make news fully interactive, all the while holding back competitive pressures that might ultimately remove the newspaper's authoritative position between citizens and government.

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