

The migration of news to the web

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Abstract Virtually all UK and US newspapers and the vast majority of regional and even local titles are now represented on the web. Indeed, the Yahoo news and media directory lists no less than 114 UK newspapers online (as of November 1998). Broadcasters from the BBC and Sky downwards, and all the famous news agencies (Press Association, Reuters etc.) also boast comprehensive Internet services. With such an array of sources available, the future of mass access to the Internet, possibly via TV terminals, suggests that more and more people may soon opt for this medium to receive the bulk of their news information. This paper gives an overview of the characteristics of the medium illustrated with examples of how these are being used to both facilitate and enhance the content and dissemination of the news product. These characteristics include hyperlinking to external information sources, providing archive access to past reports, reader interactivity and other features not possible to incorporate into more passive media such as the hardcopy newspaper. From a survey of UK and US news providers it is clear that American newspapers are exploiting the advantages of web information dissemination to a far greater extent than their British counterparts, with the notable exception of The Electronic Telegraph. UK broadcasters, however, generally appear to have adapted better to the new medium, with the BBC rivaling CNN in its depth and extent of news coverage, use of links and other elements.

History – newspapers online

The current explosion of the Internet, talk of the ‘dawn of the information age’, and consequent interest in web-based news sources, have obscured the fact that electronic news provision has been around for almost 30 years. In fact the first experiment in disseminating news electronically began in 1971 when the General Post Office in the UK began work on what was to become the Prestel service. Launched in 1979 it offered news bulletins, home banking, flight bookings and other information via special TV-like monitors. However, high costs and various other factors meant that by 1986 only 65,000 people had subscribed to the service – many of them travel agents, for whom the benefits made the expenditure worthwhile. The project was abandoned in 1993, by which time usage had dropped to 30,000¹.

Ceefax also arrived during the 1970s. Unlike Prestel, however, it has continued to survive and, indeed, flourish. It was developed by the BBC out of research into subtitling pro-

grammes for the deaf. The fall in the price of computers, development of ROM technology, and advances in data transmission techniques all helped the project, and it soon became clear that applications beyond the basic service initially envisioned were possible². Test pages were operational by 1973 and trial broadcasts begun in 1974 before a national launch in 1976. Oracle, the ITV version of teletext, was developed in tandem, with television set manufacturers also being consulted at each step. The power to transmit live news in (tele)text form was realised during this testing. This is highlighted by Sigel³, who describes how, at match point in the 1975 men’s final at Wimbledon, the Ceefax sub-editors, watching the game on TV, prepared two separate news flashes. One read ‘5:5 in the fourth set, with Ashe leading by two sets to one’ and the other ‘Ashe wins Wimbledon 6:1 6:1, 5:7, 6:4’. He claimed that the correct caption, (which was the final result) had been broadcast ‘before the umpire had had time to pronounce ‘game, set and match’!

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Adoption of teletext services were slow in the beginning, with only 3% of households having access up to December 1981. Growth became more pronounced in the 1980s, with take up at 17% by 1987³. Now, however, teletext broadcasts to a mass audience: 60% of households has at least one Teletext TV. The service is used daily by 9.4 million people and weekly by 19.2 million, according to research by polling organisations NOP and Kaleidoscope⁴.

Meanwhile, in the US, Knight-Ridder were experimenting with another electronic news system 'Viewtron', tested in Miami in 1981. This initiative, like Prestel, was also unsuccessful. Cheap cable television, becoming widely available at the time, inhibited sales of the Viewtron terminals, and although the company persisted for a number of years the system was finally abandoned in 1986, after incurring substantial losses for the duration of the experiment.

The French, however, were more successful with their Minitel electronic information and telephone directory system which began operating in 1981. According to Beckett¹, there were two major reasons for this. Firstly, the terminals were given away free by the then socialist government. Secondly, the service gave people what they wanted and needed – the telephone enquiry system which it had been designed to replace was notoriously inefficient. Millions of people around the country signed up for the service. Interestingly, Minitel probably provided the first example of a hardcopy newspaper being scooped by its electronic form, when *Libération* used the medium to publish results from the Los Angeles Olympics well before the first edition of the paper appeared on the streets.

In a parallel development the potential for accessing news online was spotted by the – then embryonic – information industry. Beginning with *The Guardian*, in 1985 World Reporter (now FT Profile) mounted a campaign which was to see the (near) full-text of all broadsheets, most tabloids and a good number of regional newspapers on the service by 1997. The cross file searching facility UKNEWS offered the prospect of searching several dozen British newspapers at the same time and viewing a composite set of results.

Also in a ground-breaking event the *Financial Times* appeared online on FT Profile before it hit the newsstands.

Possibly encouraged by Minitel's success IBM and Sears developed a news and communications network called Prodigy. The launch of this, in 1987, coincided with the advent of the affordable home PC and expanding interconnectivity between computers, especially at academic and research institutions. As Beckett¹ puts it 'electronic newspapers could now piggyback on existing computer networks with lots of technically literate, even adventurous users, rather than having to start from scratch'. Other services began to spring up to capitalise on the new environment, with Knight-Ridder, despite having had it fingers previously burnt, among them. It joined forces with America Online, a subscriber network inspired by Prodigy, and started to develop the Mercury Center from its Information Design Laboratory in Boulder, Colorado.

Some of the most significant steps in the development of online newspapers have come from The Mercury Center. The local paper, *The San Jose Mercury News*, went online in 1993 and has continued to be in the forefront of electronic news publishing. The paper pioneered 'extra' services such as a news archive dating back to 1985, expanded local information, and an electronic Bulletin Board for readers to communicate with each other and with staff. Similarly innovative, the paper also incorporates a personalised news service in which readers enter keywords, weighted by the user in terms of degree of relevance, and receive articles dispatched via email⁵.

The Electronic Telegraph, the online version of *The Daily Telegraph*, was the web newspaper pioneer in Britain, with its first Internet edition appearing in November 1994. *The Times* had launched 'ST:Online' in the September of that year, which included an interactive discussion forum, but this was a modest text only service not incorporating the then very new web technology, although it did provide a gateway to the Internet. The full web editions of *The Times* and *Sunday Times* were launched on 1 January 1996, and were the first UK papers to include (virtually) the full text of the hardcopy versions. *The Electronic*

Telegraph had adopted early a policy of editing or reshaping stories for the online reader – although nowadays the online paper, if not carrying the full hardcopy text, actually includes far more material than its hardcopy counterpart, i.e. carrying web only copy.

By the middle of its first month of operation *The Times* was already claiming that 2000 readers per day were registering to access the service, and that 'in California, *The Times* has become the essential afternoon paper'⁶. Just six months later the online paper won the 'hottest site on the Net' award at the first UK Web Awards ceremony held in London at the British Academy of Film and Television Arts (BAFTA), sponsored by Yellow Pages online and .net magazine. The Internet editions of *The Times* and *The Sunday Times* became the first national newspapers to receive an audit certificate from ABC/Electronic in August 1997⁷. *The Guardian* was typically late going online, initially developing a number of discreet pages reflecting readers' interests. These included a Webzine for science and technology and specialist pages looking at the Scott report and MPs' register of interests. It made its mark with the Euro96 site, which obtained a claimed 500,000 hits a day, and 'was one of the 100 hottest sites in the world'⁸. As is discussed later in this paper, current research at City University is casting doubt on the validity of inferring 'hits' statistics into real users or even degree of use.

Elements of an online newspaper

Many news providers have already taken steps to enhance or add value to their printed product by exploiting the potential of the Internet. The technology allows for enhanced and improved information provision not possible in a printed, or, indeed, passive broadcast medium. Thus web papers offer the potential for:

- comparatively unlimited space availability – permitting greater depth/coverage of news stories, the provision of large archives and the mounting of added value reference services;
- currency/immediacy;
- hyperlinking;
- multimedia;
- customisation;
- interactivity.

Space availability

The sheer 'space' afforded by the electronic environment is a major factor in the design and content of online newspapers. During a recent study of journalists' use of the Internet⁹ one reporter claimed that producing a daily newspaper was like squeezing 'a swimming pool of information' into 'the same quart pot every day'. With an electronic carrier that problem disappears at a stroke – space is only constrained by the amount of RAM on the server hard discs. This means that literally thousands of pages may be posted every day without the worry of running out of space. The benefits are threefold. Firstly stories can be provided to add greater depth or background; secondly, there is room to include items that have lost out in the daily battle for hardcopy space (a newspaper produces far more stories than it can realistically publish); and finally, material can be archived on site, and those archives made publicly accessible.

Newspapers have not been slow to recognise these possibilities, even if in the beginning editors were content to limit web material to some text lifted from the paper and a masthead. Nowadays online editions invariably include a 'value added' element, with seemingly every paper offering, in one respect or another, a more comprehensive product than would be possible in hardcopy. American titles have gone furthest down the road, with *The Wall Street Journal*¹⁰ claiming to have 100,000 pages available for perusal at any one time – although the site is only accessible by (a modest) subscription.

More comprehensive coverage of current news items

One of the best examples of this comes from *The San Jose Mercury News*' series on the involvement of the CIA in heroin sales. It augmented its investigative reports with biographies of key players in the story, court filings, texts of CIA teletype memos, a photograph of an arrest warrant, and even articles reproduced from other papers that were critical of its reporting¹¹. The Kosovo crisis was at its height during the preparation of this paper – online coverage has been greatly enhanced by the big US newspapers' web coverage, with

links back to previous articles, full text reproductions of important documents and links to external news and information sources.

In Britain, although online papers are generally not quite so comprehensive, they are catching up fast. *The Electronic Telegraph*, for example, incorporates a 'Euronet' section in its online publication, featuring a timeline of events surrounding the development of the European Union, essays by politicians, business people and academics, readers' polls and fora, a 'handy' guide to EU history and a collection of key documents such as The Maastricht Treaty. BBC Online includes special reports and background information of top stories. Taking the topical example of the crisis in Kosovo (current at the time of writing) the BBC web site included a vast array of background details to accompany and supplement its current news coverage. The most innovative of these was an 'interactive map' of the region. Readers are invited to click on any particular region to call up, on a side frame, a brief account of the involvement of the various military and political factions, ethnic groupings etc. within that area. Another page is titled 'History file: Yugoslavia and the Balkans'. Included here is a static map with a timeline running underneath in the form of a series of calendar icons showing key years in the history of the troubled region. Activating an icon calls up an account of important events of the time. Elsewhere are postings which variously profile Slobodan Milosevic and Ibrahim Rugova, analyse NATO's military options and outline world opinion on the situation. The site also itemises other stories from recent days dealing specifically with the (at the time) latest developments. This means that, conveniently, a site search is only required for earlier material.

Archive facilities

Considering that so much news text is already in electronic form¹² surprisingly little has been done by the UK press to capitalise on the opportunities. *The Guardian* provides free access to its Online section electronic archives (ironically, the section that dates most quickly), going back to 1995, but has no facility to search other sections, although this is prom-

ised in the future. All stories that have appeared on *The Electronic Herald's* web site are archived and accessible via a search engine. This service is considered as one of the highlights of the site. Online editor Teddy Jamieson is convinced it will be 'a resource tool for academics, politicians and the general public by providing an easily accessible, authoritative source of information'. Indeed, the service is seen to offer the possibility of building a new relationship between reader and paper¹³. At present the paper uses a search engine provided by Excite, which supports both free text and Boolean commands, but Jamieson claims that in the future users will be able to specify dates, section of the paper or use other criteria in their searching.

The News International buildings at Wapping houses five computers that contain more than 50 gigabytes of hard disk capacity and two gigabytes of computer memory – enough to house the complete Internet editions of *The Times* and *Sunday Times* for at least the next ten years¹⁴. News International is exploiting this datastore. *The Times* allows searches for back copies of its paper from the day it first went online, on 1 January 1996, and has developed an 'InfoTimes' section, where important articles and long-lasting information are grouped under headings. Retrieval is by a directory system rather than by word searching. As with other aspects of web news dissemination, BBC News online is far ahead of most newspapers, if not *The Electronic Telegraph*. Again, a comprehensive archive is on the site, searchable by keywords. The full text as it originally appeared on the web site is accessible, usefully including the links to external sources made at the time.

In the US archive access is much more common. *The San Jose Mercury News*, mentioned earlier, has a 'Digital News Library' on its site, housing more than a million articles. These include not only all the *Mercury's* own stories since 1985, but also the archives of 19 other papers hosted by Knight-Ridder. Searchers can access headlines and the first lines of stories for free, and then pay around \$1.95 to be sent the full text. This sum, users are advised, can vary slightly depending on the source. *The Washington Post* has an excel-

lent archive service – articles from previous editions of the paper can be accessed free for content less than 14 days old, and \$1.50 or \$2.95 (depending on time of day) for older material. Impressively, the database dates back to September 1986.

Reference services

Many papers are providing comprehensive reference services in their web editions. Perhaps the best example of this is *The New York Times*' education supplement. This includes resources on a wide variety of subjects to aid teaching – right down to the detail of lesson plans themselves; school calendars, and other information for students and teachers. Special features on various topics are also offered. On 24 October 1998, for example, themes included 'The launch of Sputnik' and 'Little Rock remembered'. US newspapers, being regional, also tend to have excellent local and regional information on their sites. For example *The San Jose Mercury News* includes a 'Just Go.com' section, with voluminous listings of what's on in the local (Bay) area covered by the hardcopy paper, and a customised directions facility detailing how to get to the event of your choice from your own home¹⁵. *The Washington Post* and *New York Times* are other papers with comprehensive guides to restaurants, cinema listings and events calendars for their respective cities.

In the UK, *The Times* 'InfoTimes' section provides a general reference service for readers on such subjects as stress management, personal finance and computing for small firms, plus a number of sports facts and figures. It also incorporates an extensive student supplement, containing study guides, links to universities and a full information service. Two 'mini-sites' currently being created by *The Electronic Herald* are dedicated to Scottish devolution and Glasgow's year of architecture and design respectively. These initiatives not only include material exclusive to the Internet, but are also linked to the paper's extensive archives, allowing readers to peruse articles published in the paper on both topics in recent years¹³. An idea adopted by *The Guardian* is to celebrate the millennium by plotting the history of the last 1,000 years

in 500 days. The online paper provides a complete reference guide, in two year blocks, to events and characters that have shaped this period of history. Hyperlinks to external sources (such as 'The Viking Network' etc.) are highlighted in the text. The hardcopy version of the paper runs a brief summary in a small column everyday in 'G2', the magazine section, where the full Internet version is prominently advertised.

Often reference pages are predominantly or even exclusively composed of links. These are discussed in the next section.

Hyperlinking

The ability to jump seamlessly from one electronic file to another, be it on the same computer, the same LAN or on the other side of the world, is the outstanding (siren) feature of the World Wide Web. For commercial news organisations, however, this characteristic of the system is not necessarily wholly beneficial. Hyperlinks are the backbone of the web – indeed, the very name 'web' implies this interconnectivity. On the other hand, news providers are rightly wary that those jumping from their site to another may not come back again, and for this reason much of the national UK press has, up to now, been reluctant to utilise this aspect of the htm web language. Many papers – *The Independent* and *The Times* are examples – do not link any of their stories to external sites, although the latter does use linking in its reference pages. Others, however, are more adventurous, with *The Electronic Telegraph* leading the way in including links to appropriate alternative information sources for many of its online stories and as an integral part of its reference pages.

Again, US news sources appear more liberated and offer a more comprehensive service. *The Washington Post* linked its Kosovo reports to an Associated Press photojournalist's photographs and diary notes from Kosovo, Office of the High Representative in Bosnia and Herzegovina, NATO, BosniaLINK, the US Department of Defense information service, the UN High Commissioner for Refugees, and others. Although impressive, and certainly providing an almost limitless amount of information on the area, there is, nevertheless,

a certain omission in that none of the links are to interested parties on the ground – all lead to either US or international information providers. This is in contrast to CNNi links, which include the Albanian Ministry of Foreign Affairs and, representing the Serbia point of view, the official site of the Government of Yugoslavia. However, it is in linkage to documents which gives *The Post* the edge even over the impressive CNNi coverage. The documents referred to are the full texts of The Dayton Peace Agreement, and UN Security Council Resolutions.

No doubt this extra information provision (or facilitation) gives host sites prestige, and a reputation for being good information sources, in addition to their prowess in reporting events themselves. If some elements of the UK national press have not grasped this nettle, it appears that their regional competitors certainly have. The approach of one such newspaper to the blessings/evils of hyperlinks has been documented elsewhere¹⁶. Suffice to say here that an editorial decision was made that the paper in question (*The Northern Echo*) would attract readers by the provision of an information service that included primarily links to external sites and organisations, and that this attraction would outweigh the dangers of readers jumping off. Those doing so would come back to *The Echo* site when the next information need arose. These links included, courageously, routes to many rival UK and US national and regional papers.

Web sites made up exclusively of active hyperlinks are currently termed 'portal sites'. These are dedicated, as the name implies, to providing a gateway to other sites on a particular subject or subjects. It appears that the regional press in the UK are far more enthusiastic about providing this kind of service than the nationals. Apart from the reference service of *The Northern Echo*, Eastern Counties Network, the parent company of newspapers in the East Anglia region, incorporates links to business, tourist and other sites on its excellent web pages. Of the national press, *The Electronic Telegraph* again leads the way. Its 'Euronet' pages include a resource section providing links to locations containing key policy/legislative documents and other

relevant external sites dealing with the European Union.

In the wider context of news provision on the web, major Internet search directories such as Yahoo! contain long hyperlink lists of newspaper and other news sites, and The Electronic Newsstand provides links to literally hundreds of online magazines from a variety of countries and in many languages. A more focused portal site is that of Boston.com. Apart from being a source of information generally about Boston – arts, weather, attractions etc. – the site also offers access to the content of no less than 18 local newspapers and broadcasters. These include *The Boston Globe* and WGBH, Boston's famous public broadcaster.

Currency

Of course currency is the key defining element of what constitutes news. And it is plainly what provides the online dissemination of news with a huge in-built advantage. Thus online newspapers are freed from the constraints of print production deadlines and distribution timetables. For commentators like Robin Hunt, ex-New Media Editor of *The Guardian*, it also provides the principal reason why all breaking news will migrate to the web, leaving the hardcopy newspaper as a features driven product. *Libération's* dissemination of sports results electronically hours before it went to print has been mentioned, though this may not have been the first electronic 'scoop'. There are conflicting claims for the first Internet newspaper to 'scoop' itself on the web. Hanson¹⁷ regards *The Dallas Morning News* to be the first to undertake this practice, in February 1997. The paper was in possession of the information that Oklahoma bombing defendant Timothy McVeigh had allegedly confessed to his lawyers that he had, indeed, committed the criminal act. Staff on the paper were worried that, once they began seeking reaction to the news to include in their story, there was a possibility that the defendant's lawyers might break the news themselves, in order to put their own interpretation on it and to pre-empt the press. The solution for the paper was to post the story on the Net. Jamieson, however, claims that his own paper, *The (Glasgow)*

Herald reported the earlier Dunblaine tragedy on its web site 12 hours before the first print story appeared. With regard to the non-English language press, Nicholas, Frossling and Buesing¹⁸ cite the Swedish paper *Dagens Nyheter* which was regularly offering 'front page news' the night before its print release back in 1996.

Richard Withey¹⁹, New Media Director, News International, says that there is still a huge reluctance amongst editors and journalists to break a story over the web. Breaking a story is the most important thing a newspaper can do and no journalist wants to hand that baton to the web page (yet).

As yet newspapers have not taken up the option of continually updating stories to any great extent, though it is not clear whether the pitfalls outlined above have made them wary, or if they simply lack the staff or conditions to modify their sites as needed. *The Times* adopts a very simple but effective approach. The paper retains the same 'front page' throughout the day, but includes a 'news update' option on its top menu bar. This is an area where breaking news is posted, usually in brief one or two paragraph messages without comment or analysis. No similar feature was found on any other newspaper site. On 8 October 1998, for example, the 'front' pages of *The Guardian*, *Electronic Telegraph*, *Independent*, and *Mirror* were all accessed at hourly intervals between 10am and 4pm to monitor web site news updating, the content of each one remaining the sameⁱ.

Newspapers in the US appear to give more priority to currency. Many newspapers state the time articles were posted, and the front page may change more than once during the course of a day. *The Washington Post*, however, in a similar manner to *The Times* in England, has also managed to update stories and still mirror its hardcopy twin by providing a facsimile of the paper's front-page. Unlike *The Times*, however, it does alter the main body of its web edition to reflect breaking news.

Broadcasters are used to dealing with news as a continuous stream, and the BBC has had no trouble in offering a rolling news service to readers, adding and modifying pages round the clock. This is not just for

developing news stories – the comment column article by Rev. Doug Gay that caused his dismissal from News International was published on the BBC site at 18:11 UK time, and a 'talking point' article on unemployment (where readers are invited to post their comments on particular issues) was initiated at 14:46. CNN adopts a similar approach. Both channels thus approximate their original roles as broadcasters, while the newspapers have, up to now, tended to produce web 'editions' of their product, in some cases simply reproducing copy from their paper versions (or, as Katz²⁰ put it, 'shovelling their content on to the web') enhancing these with reference and archive services.

Hanson¹⁷ cautions against a rush to get information into the public domain as quickly as possible. Apart from what he describes as an emphasis on 'getting facts on to the screen immediately, with little patience for enterprise and investigation' he cites three main reasons why instant news may not be as desirable as Internet enthusiasts are assuming. These can be listed as follows.

'Stenography for the status quo'

This is the danger that online papers will report what officials, politicians and others say without analysis or assessment of the validity of the statements. Under this heading too is the similar problem that the same officials etc. will find it easier to set the news agenda. This is rather ironic in the light of the claimed ability of the medium to allow news consumers to set their own agendas.

Looser standards

The worry here is that there will be an erosion of the normal standards of accuracy. Hume²¹ is also concerned about this problem. She noted that the scramble for 'exclusives' by the local press and broadcasters during the O.J. Simpson trial backfired for two reasons. Firstly, people questioned about the coverage had no idea of who released what news story in the saga first, nor were they particularly concerned. Secondly, the pressures on staff to get information out were so great that much of the coverage was factually inaccurate. Plainly a case of the dumbing down of news coverage.

A focus on 'the flavour of the minute'

This is the potential problem of having to provide a constant novelty value, as the news channel is open 24 hours a day. Hanson¹⁷ highlights news providers such as CNN who 'must devote vast amounts of effort to satisfying the public's appetite for novelty for just the next half hour'. He goes on to add that 'a newspaper that commits itself to the online world is likely to find its resources dissipated in just such a shallow pond, with little energy left over for the good writing, clear explanation, in-depth investigation ... that mark the best newspaper journalism'.

Customisation

This is where the reader has some control over the information received from a news organisation. At a simple level it may consist of a service in which readers are invited to request only certain sections of each day's output – be it sport, politics, or news about a particular country etc. – which is delivered by email. A more sophisticated system, such as that offered by CNN, involves creating a detailed user profile from very specific category options, and prioritising them for a personalised clippings service. Another method of customisation is to create functions whereby the reader can enter personal details, and receive appropriate information according to stated circumstances. An example from MSNBC on the Internet (www.msnbc.com), described by Pavlik²², illustrates the potential:

'On February 21, NBC's Dateline ran a piece about dangerous roads in America, zeroing in on three particularly treacherous thoroughfares. The program invited viewers to log onto the MSNBC site to learn about roads in their community. Those who did so could enter their zip code and, within seconds, based on federal data, find out how many fatal accidents had occurred in that community between 1992 and 1995 and on which roads. Within twelve hours MSNBC logged 68,000 visitors to that feature.'

Money Online provides another example. When presidential candidate Steve Forbes was championing his flat rate tax idea in 1994, a

feature allowed people to key in their earnings profile and see how the proposed tax would affect them.

Not only traditional news providers are offering customised services, but search engines and directories too, although these are (probably) exclusively of the user keyword profile type. Yahoo!, for example, includes a 'My Yahoo!' selective dissemination service. Users register to receive 'personalised news' on their Yahoo browser page. There are several options including News and Current Events, Business and Investing, Technology, Entertainment, Arts and Culture, Sports, Lifestyles, etc. Possibly the most impressive example of customisation comes, fittingly, from one of the pioneering online newspapers, *The Raleigh News and Observer*. A feature of the site is the 'Nando News Watcher' which sends (or 'pushes') continuous feeds of customised local, regional and national/international news to a small window on the reader's screen, where it can be enlarged and viewed as desired.

Newspapers in the United Kingdom do not appear to have travelled far down this road yet, and there appears to be some opposition to doing so. MacArthur²³, for example, complains that what it produces is not really a newspaper at all but a piecemeal collection of articles without any coherent editorial focus. Patrick Ensor, Editor of *The Guardian Weekly*, is more enthusiastic. His paper has established a system whereby subscribers to the hardcopy version of the paper (principally ex-patriots receiving the paper by airmail) can register to receive an email version of the sections of their choice. This service clearly answers the complaints from readers who routinely have to wait weeks (five in the case of one oceanic subscriber) to have their paper versions delivered. These people – those on the Internet anyway – are now able to read current items such as sports results the day the paper is published or earlier. The service is considered an excellent compromise by the editor, who points out that readers get their news faster, but crucially are still required to pay for the full hardcopy edition. With many papers, including the daily *Guardian* itself, putting huge amounts of news (and invest-

ment) on the web, it is doubtful whether the payment system will be able to sustain itself for much longer.

ITN has just announced 'Britain's first personalised desktop news service', although, in fact, the only degree to which you can personalise it is by selecting certain categories of required news. As there are only three of these (World, UK and Business), the 'personal' nature of the service is perhaps a misnomer, notwithstanding the fact that the number of stories desired and the frequency of delivery can also be specified.

Interactivity

Internet technology permits a far wider range of communication flow than that afforded by any other medium. Anything from private one-to-one emails to publicly broadcast newsgroup messages with a potential audience of millions are possible with the facility to reply to individual or all correspondents. In addition to this, the communication is (usually) almost instant, emphasising an element of interaction more dynamic than in written correspondence. This aspect of the Internet is one that has helped it gain appeal as a truly different and alternative phenomenon, and has led users to demand a degree of interactivity from the web that simply would not be possible elsewhere. Types of 'interactivity' may include bulletin boards hosting readers' fora on various subjects, where messages can be replied to individually or to the board; reader to journalist, where the authors of particular articles of interest make themselves available to answer emailed communication, and reader or journalist to public figure, in a similar public discussion.

Evidence as to the take up of interactive facilities is conflicting. Both *The Times* and *Electronic Telegraph* were already receiving up to 100 emails a day in 1996²⁴ and, according to staff at News International, *The Times* and *Sunday Times* are now (January 1999) receiving on average six times that figure²⁵. Similarly, *The Guardian* letters editor John Shirley claims that as many readers' letters are received via email as through other media, with, interestingly, their quality 'on average' higher⁹. *The Herald* is one paper that plans a number of

online readers' fora in the near future. This initiative is described by Jamieson¹³ as being introduced so that readers can 'interact with the publication, to discuss the important issues facing Scotland' in a form of what is described as 'cyberdemocracy'. The enthusiasm with which *The Herald* is launching this service, however, may not be justified. Experimenting with online feedback at Newsquest Northeast, a major regional newspaper organisation, has proved disappointing. Only a handful of readers contributed to a cricket discussion forum, and not one message was received with respect to *The Northern Echo* leek growing competition^{16,26}.

Almost needless to say, across the Atlantic interactive services are well established, with papers regularly organising online debate – audio as well as written – between the public and local politicians etc., and as far back as 1996 Nicholas and Frossling²⁷ noted that any major event in the US, particularly disasters, tragedies etc. spawned a rash of message board sites and newsgroups discussing the situation, many of them hosted by newspaper sites, offering mutual support etc. Outing²⁸ regards this feature as one of the most important aspects of online news services.

Many issues are raised by consideration of potential, and actual, interactive practices in an online news environment. These include:

The degree and nature of editorial staff contributions

Despite much enthusiasm expressed in the US about journalists talking back to readers, answering questions, discussing issues etc., there is a seemingly insurmountable problem here of time availability. Nicholas *et al.*⁹ found that in the UK at least, journalists were most reluctant to publicise their email addresses and, indeed, were reluctant to use the medium at all, for fear of being swamped by what they regarded as junk mail. And despite Alan Rushbridger's self proclaimed love affair with the Net²⁹, he – and many of his staff – seemingly almost on a point of principle fail to answer emails. A related issue is that of the maintenance of standards of accuracy and authority. Hanson¹⁷ gives the example of *The*

San Jose Mercury News' 'already questionable' series on alleged CIA involvement in drug trafficking, being further discredited by Gary Webb, the reporter, participating in Internet 'chat room dialog'. The hapless journalist was said by Hanson to have 'made more sweeping claims than he ever had in the paper'.

Editorial moderation

This is an issue coming to the attention of those with an interest in information policy and the law. Newspapers may be forgiven for being wary of letting anyone with any sort of obsession, complaint or general malevolence have their thoughts publicly accessible alongside serious professional news commentators. Indeed, Hunt³⁰ reports that *The Guardian* was forced to discontinue a memorial bulletin board in honour of Diana Princess of Wales due to the number of – to put it euphemistically – inappropriate messages received. Interestingly, however, it appears that online information distributors (such as newspapers) are not, according to conditions laid out in The Defamation Act 1996, liable for material posted on to sites they administer unless they play any part in deciding what is published³¹. A similar situation prevails in the US. In her paper on the development of the online edition of *The Washington Post* McAdams³² describes how it was decided not to moderate communication, based on the fact that US case law stated that 'if an information service provider edits or censors discussion postings in any way, that provider may be open to [prosecution]'.

Newspaper accountability

The implication here is that readers' greater access to the newsroom, their more proactive involvement in news analysis and their customisation of the news to fit their own personal needs may all pressurise publications into responding positively to demands and preferences thus expressed. Whether this will actually happen, and whether the process has already started, is debatable. Ian Katz, writing before his appointment as *The Guardian* New Media editor, is doubtful.

'Real power, as always, lies not in online exchanges but in daily story conferences among editors who don't read email. In fact, the familiar news-

paper model lurks behind every icon: you can write us as many letters as you want, in a faster way than before, and we'll read them. But we're still going to decide what's important, and then we'll tell you'.²⁰

On the other hand Derek Bishton of *The Electronic Telegraph*, claimed that such correspondence made the staff feel closer to the readers²⁴, although this may have been said bearing in mind his audience – the readers themselves!

Multimedia

Although this is an important feature of the web and has led to the phenomenon of the multimedia journalist, practised and much beloved by Griffiths³³, exploitation of the potential of multimedia is currently minimal in online newspapers. This is hardly surprising – organisations traditionally geared towards producing text and pictures in paper format are unlikely to have the technical expertise or infrastructure to suddenly produce film journalism over night. Also, there is the question of need or desire. It is probable that newspapers do not feel they are compelled to fight broadcasters – at least, not on broadcasters' own terms. Indeed, it is difficult to imagine even national newspapers competing with the BBC to file video reports from overseas, or even accompanying the written word with sound files. The only paper surveyed for the current article seen to have even dabbled in additional media was *The Washington Post*, which broadcasts sound interviews with local government officials and other personalities.

However, there are indications that the future, despite the current low take up, may nevertheless lie along this path. The well known new media commentator Steve Outing³⁴ is not alone in claiming that the traditional newspaper will come under increasing financial pressure as 'the masses go online'. He goes on to add that 'news publishers will have trouble maintaining editorial quality as print revenues flatten out or ... decline'. his solution is for 'the smart media company' to diversify, 'taking advantage of the Internet to publish to multiple media and thus generate multiple revenue streams'.

Outing³⁵ describes just such an initiative happening in the US. *TCPalm.com* serves as the single news-oriented web site covering a four-county region in Florida. It operates with a staff of eight housed at *Stuart News*, one of six newspapers participating in the new project, although those developing it are not newspaper employees. They work with each of the papers – none of whom have a web site nor any new media employees – and a local NBC television affiliate, WPTV Channel 5, which provide content for the site. Thus it combines newspaper reporting with video from Channel 5 ported to the web, and is designed to be updated throughout the day. Indeed, for those with a fast enough Internet connection, the site can even replace TV news. Channel 5's newscasts are put on the web live, and can be viewed using RealVideo software.

Similarly, during a recent interactive publishing conference in Zurich, John Haile, Editor in Chief, of *The Orlando Sentinel*, described how his relatively small US newspaper is now a print, online, cable and radio channel medium. Journalists go out with notebook, camera, video and tape recorder; editing is done for all media at a style console³⁶.

Online readership levels

The ultimate test of whether the news providers have been successful in the migration of news to the web is surely whether anybody has been using them. For many people the Internet is such a major part of their everyday working and/or leisure lives that it is hard to appreciate the as yet low penetration of the phenomenon, at least here in the UK. Indeed, even in the US, possibly the most 'wired' country in the world (with the possible exception, in per person terms, of the Scandinavian countries) well over half the adult population (62%) have never used the World Wide Web. Over here an astounding 85% are still web virgins. Thus, whatever value added elements are embodied into the sites of news providers' web pages, online readership levels are still drawn from a very low base.

Even within the online community, obtaining news from the web does not appear to be a priority. Despite figures produced by ZDNet³⁷ showing a decline in traditional news-

paper and news weekly consumption attributable to the Internet³⁸, another part of the study reveals conflicting evidence that using the web for news or current affairs information is not listed in the top 12 uses cited by respondents. In fact, the only 'news' like activities listed are finding sports scores, cited by 31% of respondents, and 'local information' – although this may well be of a general nature such as addresses of organisations, library opening times etc. Even among news reading web users, priorities were not with hard or breaking news. The Pew Research Center³⁸ found that the most popular type of news on the Net was the weather, with 64% of readers accessing such information. Neither finding is likely to offer much solace to investors in web newspapers.

Web audience figures provide more encouragement. ABC, the established audit company which monitors hardcopy sales, set up an electronic arm in 1996³⁹. It regularly gives figures of over seven million 'page impressions' for papers such as *The Electronic Telegraph*, and four million for *The Times*. It also assesses actual user numbers for a minority of organisations, with ITN attracting the highest figure of these with 153,000 users per month (latest available figure, March 1998). Papers make their own claims too. *The Electronic Telegraph*⁴⁰ calculates that more than 60,000 people every day log on to its site from 200 countries around the world. The veracity of all such statistics, however, is not without question, for it is notoriously difficult to calculate electronic usage. Firstly, the definition of 'page impression' is misleading. A page can be made up of many images and more than one frame – and in standard transaction log software each is registered separately, artificially inflating usage. Secondly, as a study currently being undertaken at City University⁴¹ is beginning to show, many 'users' – and the really big ones – are, in fact, web 'robots'.

Conclusion

The survey of online newspapers outlined clearly shows the seriousness with which news providers are taking the new medium and the efforts being made to attract the online news reader. In some cases, such as the *New York Times*' educational supplement and the

'Euronet' initiative in *The Electronic Telegraph*, the amount of information included on the web version of the papers is impressive. If this practice is rather more widespread and comprehensive in the US, in other respects the US are even further ahead. Indeed, in some areas the UK appears to have eschewed the possibilities offered by the medium. Unlike the US, for example, where every major news event spawns a multitude of online bulletin boards, discussion groups etc., here in the UK the Net is still regarded as a passive medium, another outlet for news providers to tout their wares. Many papers, including *The Times* and *The Independent*, are even reluctant to exploit that most fundamental aspect of web technology, hyperlinking. Even internal page connections are lacking. Given the low take up of the Internet, and even lower online readership base, this reluctance may be understandable.

UK broadcasters, perhaps due to their familiarity with 'screen' media and with greater financial and (hence) staff resources, have adapted better, with the BBC facilitating discussion, incorporating audio and video material and providing external links. Whether online competition and/or the mass access to the Internet will galvanise print titles to embrace, however reluctantly, its true potential remains to be seen.

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Notes

ⁱTo be fair to *The Guardian*, however, it did alter its layout to carry news of the (original) Law Lords decision regarding General Pinochet's extradition, after the fieldwork for this paper was completed.

ⁱⁱThe graph produced by ZDNet shows, for example, a 5% decline in 'News weeklies', it is not made clear whether this signifies a decline in general readership of 5%, or a decline in Internet using readers, or, indeed, whether Internet users consult such magazines less, despite still buying them. Also, there is no explanation given as to how the decline is directly attributable to the Internet, as claimed. This is surprising, as the study was commissioned by such business heavyweights as Yahoo and Dell, for whom clear and accurate data would be a pre-requisite.

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