

# The changing information environment: the impact of the Internet on information seeking behaviour in the media

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## THE USER COMMUNITY

Journalists were chosen for study because it was felt that they would be, as information seekers and packagers *par excellence*, in the advanced guard of Internet users and setting the pace. As it turned out this was not to be case. Despite what appear to be the considerable and direct benefits for them, after having interviewed approximately 150 journalists and observed the action in a variety of news rooms, it appears that less than one in five national journalist use the Internet and the proportion is much less than that for regional journalists. If this poor Internet take up in the workplace was unexpected, another surprise is the characteristics of those who have actually taken the Internet route. Far from being the stereotypical young and male, most are well practised journalist into their thirties/forties, which, of course, runs counter to all that we have been led to believe. Surprisingly, the study showed as much, if not more, interest in using the Internet from the supposedly 'busy' senior managers and editors than in the rank and file.

## FACTORS THAT INFLUENCE INTERNET USE

### Job role and security

In many cases seniority bestows upon the reporter the luxury of a more flexible job role, more autonomy and more job security. These were found to be ideal conditions to germinate interest in the Internet. Victor Keegan at *The Guardian*

is a good example of this. As Assistant Editor, he writes many of the editorial comment columns. Although, of course, the majority of these reflect on current news stories, often when space affords it the "third leader" is humorous, offbeat or entertaining. He has complete autonomy in the choice of these subjects, and the spin that is put on them.

Contrast this situation with young beat reporters in the regional press. They simply don't enjoy any of the luxuries of autonomy or job security and don't have the time to experiment with the Internet, which may well not satisfy their particular information needs anyway. Interviews in the tabloid press revealed a high degree of job uncertainty and anxiety, with junior staff employed on short term contracts with extremely heavy workloads. Marr (1997) even reports cases of reporters being employed on a piecemeal basis, paid by each column inch of their material published(!)

#### Ease of access

Another important point is that Victor Keegan and his fellow editors have Internet access literally at their fingertips, with networked PCs in their offices. Those with easy access - senior reporters on national newspapers, those working for some specialist publications (who often work in networked PC offices), news librarians and freelancers, who invest in home Internet terminals - are all heavy users. The lack of such access for others is a major factor in the lack of take up. Nearly a third of journalists have no access at all to the Internet. Even where there is access, it is generally remote - at the far end of a large office, or even on another floor. The equation between access and use demonstrates clearly how much physical and geographical factors influence information seeking.

#### Experience of online searching

Young Internet using reporters may also be rare because they were not around when electronic information providers first entered the newsroom ten years ago. Those already in the profession at their inception thus boast a decade of online experience - something apparently far more significant in terms of Internet use than the higher general computer literacy levels possessed by fresh young trainees. An in-depth study of the introduction of online systems by Nicholas *et al.* (1988), indicated that where favourable circumstances for use prevailed the response from end-users was undeniably positive. These circumstances included desk-top access and a need to research stories quickly. With a decade of online access and experience now accrued, it may be only natural that the journalists who have ridden this wave, now in their late thirties and older, would accept the Internet with equal alacrity.

#### Training

Even today journalism courses barely pay lip service to the existence of online services (Cole, 1997). It was even suggested during one interview that at a particular school of journalism most of the lecturers were refugees from newspapers "experiencing the first round of automation who felt they could not adapt to the new medium. What hope was there then for Internet training. A study by Scott (1995) found that technology was generally very inadequately taught even on US journalism courses. Newly qualified graduates simply do not come into the profession with the information seeking skills as their older colleagues who acquired them on the in the engine room of the IT revolution.

With greater usage in schools, however, and the ever expanding home market, there is evidence that current students are going to be quite heavy Internet users - if they have the access. A questionnaire distributed for the project to students at The University of Central Lancashire Department of Journalism showed near universal and extensive personal use and over two thirds of respondents considered that their job as journalist would change over the next five years as a result of the Internet.

A lack of in-service training (though not, it is important to add, training provision) also appears to have inhibited use among older journalists who have not taken up the Internet. Many journalists who report that they happily use online services (from their own desktops) feel they need training on the Internet, even though it is supposedly the ultimate end user retrieval tool. However, although at least one national newspaper information unit, *The Guardian*, runs formal training sessions journalists are generally too busy to avail themselves of this opportunity. The lesson is that you must surely embellish them with these skills at Journalism school

#### Gender

There are differences in use according to gender, with men Internet users predictably outnumbering women. This may be, however, a result of a general predominance of men in the journalism profession. In fact, all but one Internet user in our *Times* sample was male, although the difference is not so pronounced at *The Guardian*. Taking generally, it appears that in the national and regional press male journalist users outnumber females by three to one. However, in the New Media companies/units, that publish news exclusively on the Web, (young) men are very much the dominant user group. In other places of high Internet use, such as in the offices of specialist publications women are more likely to use Net, and within the lower age group there is evidence to suggest that there are an equal number of male to female users.

## CATEGORISING INTERNET USERS

It is possible to classify journalists (and information professionals) into seven groups regarding their use of and attitudes towards the Internet. There are four user groups - Net 'worshippers', the economically driven, the pragmatists, and the occasional dippers, and three no-user groups - the enthusiastic novices, the non-believers and the resentful dinosaurs.

### Net 'worshippers'

These are the young "computer generation" IT whiz kids who have embraced every aspect of the Internet, and are culturally committed to it. They often work in new media or earn their money as freelancers. They see the Internet as a means of extending information democracy by weakening the power of large news agencies to set the news agenda. It is almost impossible to get them to say anything bad about the Internet - overload, authority, cost and the rest are swept aside as being either not a problem or inconsequential, given the universal benefits which the Internet brings. Apart from physical factors that often distance the journalists in New Media labs from their mainstream colleagues, their personal make-up is very different too. They are typically younger than their paper colleagues, often they are not trained journalists and they proclaim their differences by playing loud pop music in the office.

### The economically-driven

These people work in small newspapers with no library (e.g. *Sunday Business*), and are attracted to the Internet for the wealth of free information it provides for what they regard as little time expenditure. The Internet skills of the economically driven - like those of the new media journalists - are high, and they are adept at using the system to access information that would otherwise be expensive to obtain - financial information, for example, from the Internet. Desktop Internet access is the norm. This group also incorporates a body of freelancers who have invested in Internet technology for researching stories from home. Not having access to expensive online services or huge cuttings files, for them the Internet is a godsend, with its endless supply of foreign newspaper files and free Web news services. Finally, senior managers and editors also fit in this group. They want to save money and see the Internet as a way of doing so. These people, like Alan Rusbridger of *The Guardian* are also the most enthusiastic about exploiting the Web for disseminating their product - indeed, they are wary of not doing so, for fear of being left behind.

### The pragmatists

This group incorporates the Internet into their array of general information sources. They do not regard it as heralding a fundamental shift in information seeking behaviour, or see it as a method for reducing information costs, but they do appreciate its convenience and power. The great majority of information professionals (and librarians) fall into this category. Pragmatists look at each enquiry and make a professional decision as to whether they will be researched from online services, cuttings, hardcopy books, CD-ROM, the Internet, or a combination of these sources. They are thus not necessarily big Internet users, and there is little displacement of other sources. They are accomplished users of all the available sources and systems - heavy Internet users are simply heavy information users, full stop.

### The occasional dippers

This group includes a large number of journalists who use the Internet only when other sources do not solve their information problems. Only a small minority of librarians, but many journalists, take this attitude. Generally their low use is not through any dislike of the Internet - in many cases they would use it more if they had either better access or training (or, more generally, both). In this way they are similar to the enthusiastic novices, described below. In another way, however, they are very different - they have tested the waters, and know only too well, even if only in a general sense, what the Internet can do for them.

### Enthusiastic novices

The first non-user group, formed by journalists who have never used the Internet and do not know exactly what the Internet can do for them, but are intrigued by what they have heard, and express interest in discussion or after being given a demonstration. The bulk of this group is formed, interestingly, by both older (50+) and younger journalists. They generally blame time constraints for not mastering the system. Some trainee journalists are in this group. Usually they have had (minimal) exposure at university; or obtained general computer literacy at school or have friends in higher education who enthuse about the Net. New recruits these days are often contracted - particularly on the tabloid press - for three to six months and, unsurprisingly, have no time or status to indulge in pioneering activities like searching the World Wide Web for stories.

### The non-believers

This group is formed by those people who basically not interested in the Internet. They have a variety of practical reasons for their abstinence, and would appear to be unlikely to adopt the system even if they had desktop access. Apart from problems of time constraints and job status, the biggest problem for this group is that of authenticating data. A third of non users cited this as a factor. For others information overload is the issue. A large body of them also continue to enthuse about hardcopy cuttings. Finally, they have more than enough sources and systems to get along with - they claim there is no information impoverishment or gap to be filled. When such gaps are identified they invariably summon information staff, who then may or may not use the Internet on their behalf.

### Resentful dinosaurs

This group - exclusively journalists - represent the polar opposite of the "Net Worshippers". They see the Internet as a threat to their privileged access to information, and are not in the least interested in empowerment or democratising the news. The whole ethos of the Internet as a conduit for the free exchange and sharing of information is anathema to them. Journalists jealously guard their information sources and are sometimes suspicious of revealing their information needs. They are irritated by the fact that anyone with a PC and modem can reach a potential audience of millions by posting material on the Web. This group constituted a small minority of those surveyed, mainly because the majority of our interviewees were users or enthusiasts. However, there is much literature around expressing these views (see, for example, Jenkins 1997) and the very lack of take up strongly suggests widespread negativity of this sort.

### USING THE WORLD WIDE WEB

At times it may seem as if there are as many uses for the Internet as there are Internet sites or Internet users. Amongst a seemingly endless list of activities, project interviewees variously claimed to have indulged in real-time chat with Czech dissident students; accessed OECD statistics; bought government reports; checked the latest information about computer viruses; downloaded free software; kept abreast of current events and monitored the activities of a religious cult.

The journalist who lamented the fact that, as he saw it, *the Internet is still controlled by the baseball cap turned backwards anorak brigade tossing puerile jokes into the ether* was clearly unaware of the uses to which the system is put by those for whom it is a legitimate and valuable means of acquiring information. Use was found to be dominated, at least where journalists are concerned, by accessing sites of government and other institutions such as universities, research institutes etc.; online newspapers and news services in general. Almost all journalists who mentioned specific sites or site types included at least one of these areas, and the blanket term "official sites" was used by others.

### SPECIFIC SITE TYPES AND USES

#### Web newspaper sites

By far the most popular locations were online newspapers. The extensive use of the Internet to consult other news publications, both in terms of the numbers of journalists doing so and in the way they use such sites, is perhaps not surprising given the highly incestuous nature of the newspaper business, and is a natural extension of the journalists predilection for researching from cuttings or online databases of newspaper archives such as FT Profile. Newspapers of every description were mentioned, with US titles being the most popular online sources. Not surprisingly, *The Washington Post* was the paper mentioned most frequently.

Librarians used newspaper sites less than journalists. There are several reasons for this. Firstly, as information professionals, they are skilled in and happy with online services such as FT Profile. Secondly, there is a large amount of electronic text swapping of each day's copy between newspapers, both saving online bills and obviating the need to access those titles' Web versions. Data suggests that librarians avail themselves of this in-house database more than journalists. Finally, there isn't the pressure to be one hundred percent cognisant of "the news".

Researching for specific information, filling in the history or background to a current issue, keeping abreast of the news in other countries or searching for stories the wires may have missed, were all cited as examples of the use of newspaper sites. An excellent example of searching papers for specific information was given by ITN's Online Editor. A journalist friend in Jerusalem had an appointment to interview a Palestinian minister about corruption. She was unable to find information on the ground and so phoned John in London. He found six newspaper articles about the report from the Internet, and was able to tell her by phone of four cars the minister had taken for his own use, missing

funds and other relevant facts - all while she was waiting outside his office in the West Bank

One common use of Web newspapers is to discover stories that have escaped the attentions of the wire services. A third of respondents stating specifically that they accessed newspaper sites did so for general background information and/or to browse online titles. Some reporters are actually charged with the task of reading the world's press for interesting or unusual stories to go in specific columns of such material (*The Herald's* Diary, and *The Guardian's* Jackdaw, for example). For such journalists browsing newspapers and magazines is an essential activity, and those interviewed indicated that this task has been made a lot easier by the advent of the Internet. Many specialist or subject journalists access online newspapers for this purpose.

#### News services

In addition to the many journalist users who read daily papers and/or magazines online more than a third of those itemising sites or site types consulted news services over the Internet to keep abreast of current events. The majority of these were journalists working for specialist publications, as freelancers or in New Media environments. This is hardly surprising. National and regional newspapers have excellent access to "traditional" online wire services. Freelancers, on the other hand, do not generally enjoy any access at all and are inhibited from subscribing to paid services by cost. Many have networked PCs at home, however, and find the Internet easily fulfils their current affairs needs. Some freelancers spend an hour or more every day consulting all the various (free) news services they can access on the Internet.

#### Other "official" sites

Of course, online newspapers, magazines and news or current awareness services represent just a tiny fraction of the vast files accessible over the World Wide Web, and they invariably formed just one resource of a vast selection exploited in the newsroom. Over half of journalist users said they used "official" sites generally or named specific institutions from which they obtained data. Government sites were, predictably, the most heavily accessed institutions, with HMG departments, local councils or, in the case of a Time-Life journalist, sites of overseas governments were all mentioned. Mainly sought from these sites were press releases, reports, statistics or simply news and views.

University and research sites were nearly as popular as government ones, particularly with specialist and freelance workers for whom it saves the time and effort required to *telephone round, find out who you need to speak to, not catch the person in - or ask for research papers that never arrive*. All science reporters

interviewed also emphasised their use of academic sites. This can actually be a necessity - the Internet is becoming the only medium by which he can obtain some of the material. NASA, for example, does not issue anything on paper at all.

#### Obscure, offbeat, unofficial sites

Nearly two thirds of librarians, as opposed to only a very small minority of journalists, said they used the Internet to procure "obscure", "unofficial", "offbeat" or similarly described material. This description included material that was impossible, or very difficult, to acquire by other means, cult information or strange and unusual facts. Examples include unusual facts (as fascinating and bizarre as possible) about the history of Middlesbrough in the FA Cup (in preparation for the Final in 1997), the Heaven's Gate Web site, the full text of the Unibomber's manifesto, and the history of the racquet game Petanque. One very interesting example of an information professional's efforts in accessing information unavailable elsewhere involved a *Guardian* librarian who found the Web site of the Tupac Amaru revolutionary movement on behalf of foreign correspondent John Hooper, who was in Lima covering the group's hostage taking at the Japanese Embassy. Worried about being faxed sensitive material, he phoned the paper's office in London, and took notes from Web site information read out to him.

#### Entertainment sites

Nearly a half of librarians describing site types they visited said they looked for entertainment, but only one tenth of journalists did so. The BBC TV Web page site was the most commonly mentioned specified location, and searching the Internet for film and pop music information was mentioned by a majority of librarians who discussed specific use. Biographies or the latest ventures of famous actors, soap opera plot lines and rock band concert dates are all easily found on the Internet. Many entertainment queries are, of course, of the simple fact seeking kind such as requests for film dates/stars/full titles etc., although this is not always the case. An excellent example of in-depth research in this area, undertaken by librarians on the Internet, was provided the Information Manager of Newsquest North East. The film *101 Dalmatians Live* caused a controversy in the United States because of the question of cruelty to animals in its production. As the picture was released in the US first, the library at Newsquest used the Internet to get US reviews, comment, reaction and information about how the animals were treated in preparing for an article written to coincide with the UK release: *the paper would have paid a lot for this kind of information online and would not have been able to gather nearly as much material*.

### The Web as a giant directory

Another use of the Internet is, as one respondent said, to use it as a *glorified telephone directory*. Not surprising, perhaps, was the extent to which librarians used the World Wide Web in this way. Questionnaire returns gave this use as the most cited, itemising online Yellow Pages, expert finding services (such as "Profnet") and to confirm overseas telephone numbers etc. etc. Employing the Internet in this way possibly reflected the predominance of straightforward factual questions given to librarians by journalists. Very few journalists actually used the Internet themselves for this purpose. Possibly for this reason, in order to try and reduce the amount of such trivial enquiries received, librarians at *News International* and *The Guardian* are incorporating Yellow Page hyperlinks, contact (and other) details of newsmaking people in the Intranets they are constructing.

### Newsgroups

There appears to be little take up of any newsgroup facilities here in the UK, despite much literature from the USA describing the exploitation of this source by journalists that side of the Atlantic. The majority (indeed, over 80%) of respondents either never mentioned this aspect of the Internet or, when asked about it, stated simply that it was not used. A few were frank enough to admit they did not know how to access groups, and others - even some Internet users - did not appear to know what they were. Almost needless to say, the users and advocates were primarily the band of New Media librarians who championed all aspects of the Internet. No less than 50% of this group specifically mentioned newsgroup use. Following these were the specialist and freelance journalists, 33% of whom (amongst Internet users) indicated some use. Only 13% of users who work in the national and regional press, however, mentioned newsgroups - and much of this was accounts of other people's efforts. Take up amongst librarians was equally low, also at around 13%, including those expressing interest in but without personal experience. There appears to be some recognition of the potential within the Internet using community, but so far this potential is lying almost dormant.

Within the very small newsgroup user community, three (possible) uses were specified, the most common being for story ideas. Other uses were to seek out experts, contacts or eyewitnesses, and gauge opinion about a particular issue from the general content of messages. The latter simply involved either monitoring of message traffic to obtain a feel of the current climate of opinion; or post a message and judge opinion by the quantity and variety of answers.

"Surfing" newsgroup traffic for story ideas was more popular with specialists and freelancers. Their preference for this use over that of seeking contacts is may be because they already have a personal contact list of experts or are sufficiently cognisant of the leading figures in their subject not to need to search the Internet for names. Also, of course, there are financial implications - surfing the Web must be a lot cheaper than virtually any other method of finding stories.

### CONCLUSION

Our research contained two really big surprises: the low Internet use found in many of the news organisations surveyed - particularly in the national and regional press - and the fact that, where it was being used, it was being used in a very limited way. Visionary librarians in the USA describe posting questions on newsgroup lists, email facilitated real time interviews, investigative reporting from the Web and much more. The extent to which this actually occurs over there, however, has not been thoroughly investigated - surveys such as that by Garrison (1996) or Ross and Middleberg (1997) rely too much on tick boxes on questionnaires to obtain their data. This research project, however, rather than confirming such innovative and adventurous Internet use, has instead highlighted a deep information conservatism in the journalist profession. When given the powerful, comprehensive, freely available ultimate end user tool - the Internet, the tendency is to stick with what you know, what is familiar (newspapers, and official sites) and do just the simple things (fact checking, story idea generation).

Ironically, the finding that librarians *do* exploit the nooks and crannies of the Internet for the obscure, unusual or "unofficial" information may also point to a kind of information conservatism also, for exactly the opposite reason. Despite the incredible number of newspaper sites the Internet now hosts, librarians used them far less than their journalist colleagues. Indeed, the majority of those interviewed were doubtful even that use of online services such as FT Profile was declining by anything more than a small degree, and only then more because of mutual text swapping between titles than as a result of papers on the Web. Similarly, despite generally good Internet access in information units and, of course, librarians being professionally trained information specialists adept at using electronic systems, only three of fifty one interviewed in-depth described the kind of interactive and communicative use of the Internet exemplified by the BBC researcher who sought opinions on rail transport from user groups' message flows.

In many ways the Internet in the newsroom is, then, if not a sleeping giant, certainly one whose faculties have not all been awakened yet. It has definitely arrived, and with more than a whimper - but not (yet) with the expected bang.

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