Online news in Australia: patterns of use and gratification

An Nguyen, Elizabeth Ferrier, Mark Western and Susan McKay

Abstract

Key findings from the first national survey of the current state of play of online news consumption in Australia indicate that (1) the Internet as a news medium has reached a mainstream status in terms of audience sizes, although its penetration is still within a higher socio-economic segment of the society; (2) many distinctive features of online news have been substantially used and appreciated; and (3) from the perspective of innovation diffusion theory, online news has a notable potential to foster further adoption in the years ahead.

Only a decade ago, the world-wide web remained a true "Wild West" to both the news media and the public. When *New York Times* technology reporter John Markoff mentioned Mosaic, the first web browser, at the Nieman Foundation's first conference on the new media in 1994, the moderator had to ask him to explain what the tool was (cited in Boczkowski 2004). The boom, however, soon began and took place at an unprecedented rate. From only 20 newspapers with a web presence in 1993, there were 3,112 newspaper sites, 3,900 online magazine sites, 2,108 radio sites and 1,823 TV sites by September 1998 (cited in Sparks 1999). By 2002, the same source of statistics reported a total of 13,536 sites set up by traditional news organisations worldwide (cited in Wa 2002).

Early expectations of a widespread diffusion of online news have also been realised. As the Internet continues to enjoy a deep penetration into daily life all over the world (with the global online

population reaching 934 million in 2004 and being projected to jump to 1.07 billion in 2005 and 1.21 billion in 2006 – according to the Computer Industry Almanac, via http://www.clickz.com/stats/), news reception has been confirmed by surveys around the world to be one of the most popular online activities (along with emailing and searching non-news information), with the new medium having become a mainstream news source in some countries (Nguyen 2003). Moreover, the increase in online news populations has shown no sign of stopping. In Canada, for example, the proportion of households using the Internet to "view the news" grew from 20.4 per cent in 2000 to 30.2% in 2003 (Statistics Canada 2004). In the US, 29% of the adult population got online news at least three days a week in 2004 – up from 13% in 1998, 23% in 2000 and 25% in 2002 (Pew Research Centre for the People and the Press 2004).

This development reinforces the widespread web-generated perception of the Internet as a "fabulous monster", a phrase coined by Bryan Appleyard (1999) that has been dominating the traditional news media and driving their hasty online migration since the latter half of the 1990s. Shortly after Tim Berners-Lee's invention of the world-wide web in 1990 (followed by the 1993 introduction of Mosaic by students at the University of Illinois), the web turned itself from an "alien creature" into a great source of both fear and excitement for media executives and journalists. On the one hand, the web presents a golden opportunity for news people in their long search for more commercially viable products. Not only does it offer a chance to reach a broad and almost infinite audience without the requirement of high production/distribution costs, it has also been seen to possess so many desirable features to develop better news products, especially the vast capacity for immediate updates, in-depth coverage, multimedia presentation, two-way communication, searchability and customisation (see, for example, Harper 1997; Lasica 1997; Prosser 1998; Pavlik 1998; Fidler 1997; Quinn 2000; Gunter 2003; Boczkowski 2004). On the other hand, these features, combined with the 24-hour availability/accessibility of news on the web, make the medium potentially destructive to traditional news

business models (van Dusseldorp 1998; Fidler 1998; Fidler 1999; *Economist* 1999; Brown 1999; Schultz & Voakes 1999; Black 2000). It was and is widely assumed that because of its technological potential, the Internet would sooner or later become an ideal source of news to the public, playing a major role in societies. Consequently, time and money spent on traditional news products is expected to reduce and possibly cease at some point in the future. At a time when producing the Sunday version of the *New York Times* consumes 27,000 trees (cited in Boczkowski 2004), online pioneer Michael Bloomberg declared to a 1998 conference audience of 1,100 newspaper journalists: "If you mix the ink and chop the tree, you'll be probably put out of the business" (quoted in Brown 1999, web document). More recently, Rupert Murdoch confessed to the American Society of Newspaper Editors:

> Scarcely a day goes by without some claim that new technologies are fast writing newsprint's obituary. Yet, as an industry, most of us have been remarkably, unaccountably complacent. Certainly, I didn't do as much as I should have after all the excitement of the late 1990s. I suspect many of you in this room did the same, quietly hoping that this thing called the digital revolution would just limp away.
>
> Well, it hasn't… it won't … and it's a reality we had better get used to – and fast. … What is happening right before us … is a revolution in the way young people are accessing news. They don't want to rely on the morning paper for their up-to-date information. They don't want to rely on a God-like figure from above to tell them what's important. And to carry the religion analogy a bit further, they certainly don't want news presented as gospel.
>
> Instead, they want their news on demand, when it works for them. They want control over their media, instead of being controlled by it. They want to question, to probe, to offer a different angle. Think about how blogs and message boards revealed that Kryptonite bicycle locks were vulnerable to a Bic pen. Or the Swiftboat incident. Or the swift departure of Dan Rather from the CBS. One commentator, Jeff Jarvis, puts it this way: give the people control of media, they will use it. Don't give people control of media, and you will lose (Murdoch 2005, web document).

Beyond the mere statistics of online news usage presented above, however, some unanswered questions arise. Have people adopted news on the web because they enjoy using its exclusive technological features? Or is it simply because it is largely offered without charge and/or is convenient to integrate into Internet usage, which is multi-purposeful in nature? If the power of online news is a strong driver, how strong is "strong"? Even more provocatively, could some early adopters of Internet news abandon it for some unknown reasons – as happened to videotex news services (the precursor of the web) which were hailed as the coming revolution of the 1980s (Fidler 1997; Boczkowski 2004)? If yes, how many would and what are the reasons? If no, why do people keep on with the news online? To what extent are they satisfied with it and do they really consider it a powerful medium? Without knowing the answers to these questions and the like, it is almost impossible to know whether the web as a news medium is going to continue its impressive uptake in the years ahead (and then possibly dominate the future news environment) or whether it is soon going to reach a saturation point. Consequently, without these answers, the popular technology-determinist belief of the possible displacement and replacement effect of online news on traditional sources would remain open to question.

Unfortunately, inadequate academic attention has been paid to issues relating to the important questions raised above. This is not because online news consumption has been ignored in research. Many studies have intensively and extensively investigated the effect of information presentation on computer screens, including its efficiency and effectiveness (Wearden 1998; Wearden et al 1999; Schierhorn et al. 1999; Wearden & Fidler 2001; Vargo et al. 2000) and its influence on cognitive aspects of online news consumption (Oostendorf and Nimwegen 1998; Sundar 1998; Sundar 2000; Tewksbury & Althaus 2000; Tewksbury, Weaver & Maddex 2001; D'Haenens, Jankowski & Heuvelman 2004). Others have compared the web with other traditional news sources in terms of preferences (Mueller & Kamerer 1995; Chyi & Larosa 1999) and credibility (Johnson & Kaye 1998; Schweiger 2000; Abdulla et al 2002; Nozato

2002). Substantial research has also been devoted to the relationship between Internet and Internet news adoption and traditional news usage (Bromley & Bowles 1995; Robinson et al 2000; Stempel III, Hardrove & Bernt 2000; Dutta-Bergman 2004; Lee & Leung 2004; Dimmick, Chen & Li 2004). While these studies would certainly have their own important implications for the future of online news, none has addressed the basic question of how the widely touted features of online news such as immediacy, depth of coverage, customisation, searchability and so on have been implemented and appreciated. Only a few studies have explored this to some extent (Weir 1995; Wu & Bechtel 2002; Dimmick, Chen & Li 2004) but no full picture has been provided in relation to patterns of online news usage and satisfaction[1].

In Australia, an examination of major Australian journalism and communication journals reveals that the situation is even worse, with the whole world of online news audiences being almost untapped. As a preliminary attempt to address this situation, this paper reports the results of a national survey of Australian online news usage, conducted in July and August 2004. The main aim of the paper is to explore the current state of play of online news in Australia, providing a snapshot of the Who, What, Why, Where and When of online news consumption in the country. After examining the prevalence of online news in Australian daily life, users' implementation and appreciation of its supposedly advantageous features and possible obstacles to its diffusion, the authors will draw on the notion of interpersonal network influence in innovation diffusion (Rogers 2003) to discuss the potential development of online news in a general sense.

Methodology

The data for this report derive from a national postal mail survey of Australian news users aged at least 18. A total of 2,500 residential addresses were randomly selected for the initial sample from DTMS (Desktop Marketing System) – a database of Australian

addresses based on Telstra's telephone directories, which was updated every three months. The questionnaire was sent out with a covering letter in early July and then with a reminder letter in early August 2004. At the time of data collection, more than 50% of the Australian population had home access to the Internet (Australian Bureau of Statistics 2004). By the time the survey period ended, more than 400 letters had been returned with notices of wrong addresses, changes of residential addresses, deaths and so on. The final sample includes 790 respondents. This indicates a successful response rate for a postal mail survey (38%), given the length of the survey questionnaire (extending 16 A4-size pages with over 270 items) and a limited research budget[2]. By comparison, a recent leading academic mail survey, the Australian Social Attitudes Survey – 2003, achieved a response rate of only 42% despite a more extensive (and expensive) follow-up strategy (Gibson et al. 2004).

The questionnaire was extended from one used in a pilot study conducted among 75 Brisbane residents in 2001 by the first author for his master of journalism thesis at the University of Queensland. Some additional items were borrowed from previous studies, especially recent surveys of news media usage by the US-based Pew Research Centre. One fundamental concern in designing the questionnaire was how to define news and non-news information. For a non-user of online news, things are less problematic as news is generally understood to be current information from the mainstream media. For an online news user, however, the wide variety of potential sources of current information (such as an information exchange site, a community publishing site, a corporate information site, or even a politician's weblog) blurs the line between what is news and what is not. But recent developments indicate that these sources do play a considerable role – for example, OhmyNews, a Korean community publishing website, 80% of whose content is produced by its more than 30,000 citizen-journalists (from housewives and children to professors) had attracted a daily readership of around two million by its third birthday on 22 February 2003 (Bowman & Willis 2003). We thus decided to accept the loose notion of "informational

news" – coined by Burnet and Marshall (2003: 160) to reflect the shift from institutional news towards "much more raw and less edited versions of phenomena and events rubbing shoulders with much more journalistically constructed stories of phenomena". In the questionnaire, therefore, online news users were first given a question on their general Internet usage, which distinguishes "getting news" and "searching non-news information". However, what is "news" and "non-news" information was left for the respondent to decide. In later questions, non-mainstream sites were included as possible sources of news online.

The final sample shows some biases when compared with the Australian 2001 Census data. Table 1 shows that the sample is not representative in terms of age and sex: younger people were underrepresented while males were slightly overrepresented. Given that these two major demographics have a potentially critical influence on online news adoption/usage, the sample was weighted according to the Census joint sex-by-age distributions before data analysis. The weights reproduce the population distribution on the variables. For this paper, we mostly present descriptive statistics on patterns of online news uses and satisfaction. Confidence intervals are also calculated and indices created where necessary. All analyses were weighted. In the following section, key results are presented along four issues: (1) the prevalence of online news in Australian daily life; (2) how people consume and make use of common online news features; (3) the extent to which users appreciate online news in terms of content and medium attributes; and (4) potential obstacles to online news adoption and usage. A further analysis is then presented before a general conclusion.

The prevalence of online news

Seventy-five per cent of the sample identified themselves as Internet users. Nearly 46% of these (or about one third of the sample) were using the Internet for news (9% of them had been doing this for one year or less and 57% had at least three years' experience with online

news). Nearly seven in ten of those using online news did it frequently (28% several times a week and 41% every day). A 95% confidence interval reveals that as of August 2004, between 30% and 37% of the Australian population were using the Internet for news. Compared to the fact that only 22% of the same sample (or from 19.2% to 25.2% of the population) subscribed to a pay television service, this suggests that the Internet can be seen as having become a major news source in Australia. However, online news was still mainly used by socio-economically advantaged segments of the population, with 66% of online news users being males, 72% living in a metropolitan area, 67% working full-time, 67% being professionals/managers or white-collar workers (those in clerical/sales and services occupations), 72% holding at least a TAFE/trade certificate (42% with a undergraduate/CAE or higher degree) and over 58% having a before-tax household income of $50,000 or more. In addition, 79% of these people were between 18 and 49 years of age.

As part of Internet usage, news reception was a regular activity for 35% of Internet users, lagging behind personal contact (emailing/messaging – being used often or very often by 82% of the online group), searching non-news information both for work/study (59%), searching non-news information and for other purposes (63%), e-commerce ("purchasing goods and using services like finance and banking" – 39%). The prevalence of online news use (in terms of regular usage), however, was greater than Internet use for entertainment/relaxation (29% doing this often or very often) and interaction with other users (attending chat rooms, online forums and the like – 17%). More than half of online news users said news was an essential (18%) or important (38%) part of their Internet usage. Furthermore, nearly two-thirds of online news users (or 21% of the whole sample) said the Internet had "some" or "a great deal" of contribution in shaping their perception and understanding of public affairs. In addition, the amount of time spent on online news is relatively high: when asked about their most recent online session that incorporated news usage, users reported a mean amount of

almost 15 minutes spent on news, which accounted for over more than a quarter (27%) of the total time spent on that online session (55 minutes).

The implementation of online news

Table 2 presents online news usage behaviours in terms of where people go for news online and which sources they like the most. 78% of online news users flocked to newspapers' websites for news. Given that newspapers outnumber both traditional and non-traditional mainstream news organizations on the web, this is hardly surprising. It is interesting, however, that accumulated news sites (e.g. news.yahoo.com or news.com.au) had become popular news sources (used by 64% of online users) – slightly ahead of traditional broadcasters' sites (62%) and those owned by news agencies (21%). Also, non-mainstream sources (i.e. "news sites offered by individuals/groups/organizations outside the mainstream media") were visited for news by a quarter of users while news/information exchange websites had become a somewhat important source (9% of users). The bottom part of the table tells a somewhat different story: although newspapers' sites and news aggregators were the most visited, broadcasters' sites dominated the list of "most favoured" news sites, with ninemsn.com.au being chosen by 19% of relevant respondents and abc.net.au by 14%. The major Fairfax newspapers' sites (theage.com.au and smh.com.au) were ranked the fourth and the sixth favourite news sites. Between them is the News Limited-owned news aggregator news.com.au (8%). The two well-known international news-aggregating sites of news.google.com (6%) and news.yahoo.com (4%) also joined this list. Below these were four news sites (bbc.co.uk, wired.com, blic.co.yu and rallysa.com.au) that were chosen by nearly 3% of users but were not included in the table because these were still within the margin of sampling error.

As for typical usage, online news consumption seems to spread throughout the day: 44% reported using online news whenever convenient while 32% did this between 9am and 5pm, 10% before

9pm and 14% during 5pm-12am. Their most recent online news session took place mainly at home (60%), "just today" (42%) or "within the past few days" (40%). In the same session, the majority (56%) said they "went deliberately to a news site to check news of the day"; 15% "heard something of interest happened and visited a news site to check it"; 13% "happened to go across a news item when doing something else"; 10% "got some news from other sources and went online for more details"; 4% "got an interesting news item from an email news alert" and 2% "got an interesting news item from a friend via an email message". None reported being "linked to an interesting news item from a news/information trading network" or any other ways of starting the session. On average, they visited 1.8 news sites and four in ten were combining this with doing something else such as eating and/or drinking (63% of them), talking/chatting to other people (25%) and a wide range of activities like telephoning, emailing, "assisting a colleague" and even "watching children in a library".

Table 3 presents how current users have taken advantage of some popular exclusive features of online news, classified along six dimensions: convenience of use; content richness; immediacy; multimedia; news on demand; and participation opportunities[3]. Clearly, features related to the web's rich content were very popular choices, with nearly three quarters of online news users having visited a number of sites for the same news item (26% doing so often or very often), nine in ten clicking on links to related stories for in-depth/background information (46% frequently), and 57% finding other perspectives from non-mainstream news sites (16% frequently). Substantial use of the immediacy of the medium has also been made: only 30% of online news users said they had never received up-to-the-minute news several times a day and more than a quarter did this frequently. When asked "If right now, you heard something of great interest had just happened, which medium would you go first to check it?", 47% chose the Internet – compared to 34% choosing television, 17% radio, 2% newspapers and nobody for magazines. This is important in the context that the questionnaire forms were

likely to be filled at home where traditional immediate news media like radio and television are available. Also, as noted, a typical online news session happened more at home than at work or any other place.

In terms of services that make news convenient to receive in the online environment, 16% of the online news sample combined general news reception with emailing and nearly one-third made their favourite news homepage the default front page of their web browser. News via mobile devices has not enjoyed a deep diffusion, being used by only 6%. As for services that provide news on demand, search engines topped the list of popular offers (having been adopted by 88% of online news users and frequently used by 42%), followed by personalised email news alerts (24%) and personalized news pages such as My Yahoo! or My MSN (22%). Multimedia news content had been experienced by nearly half of users but was substantially used by a relatively small proportion (15% in both cases of audio and video news). An interesting point here is that even with the written news text, 66% said they frequently scanned or skimmed rather than read word by word. Over half (52%) had printed stories for later references, with 16% doing so frequently.

Participation opportunities, arguably the unique feature of online news, had been taken to some extent. Remarkably, 71% had passed their first-hand information to other users with 27% doing so often or very often. News exchange among peers had become somewhat common – with four in ten having sent news links to peers and half having received news links from peers – but it was a frequent behaviour among only a small portion of online news users (8% or less). Online opinion polls, the simplest form of participation, had reached almost half of online news users and were being participated frequently by 17% of the online news sample. Interestingly, while only 9% reported receiving news from news/information-trading sites (mentioned above), more than twice as many (21%) had gone to these sites to have their say (4% did this often or very often). Finally, weblogs or blogs – the participatory

publishing form that has been gaining prominence in the US in the past few years (Pew Research Centre for the People and the Press 2004) – had been heard of by 28% of online news users but read by only 11% (and frequently read by 4%). In addition, only 4% had posted comments on weblogs and virtually none did this on a frequent basis.

The appreciation of online news

Table 4 shows that immediacy is the most important feature keeping adopters with online news, scoring a mean of 4.11 on a five-point Likert scale of agreement/disagreement with the provided statements. This is followed by the multitasking nature of Internet usage, i.e. online news consumption can be easily combined with other daily activities (3.87). Two content richness-related elements were rated third and fourth: the permanent availability of indepth/background information (3.65) and more news choices (3.51). The fact that news can be consumed on demand ("because I can get news tailored to my interest only") was also appreciated (3.47). Although online news is offered largely free by providers, the cost benefit element was collectively given a mean of only 3.15 – not very high above average. The same score was given to the presence of different viewpoints – which can be seen as a subdimension of content richness. At the bottom of the list are two features related to participation opportunities: being able to discuss news/current affairs with peers (2.64) and to "have my say to the news media" (2.45).

Table 5 shows the gratifications obtained from online news usage in terms of major news content and news attributes[4]. It is clear that most of the listed news types are well served online. The medium, with its global nature, is most gratifying in its provision of international news (with a mean "helpfulness" score of 2.3 – out of 3)[5]. This is followed by news about entertainment/sports (2.22), science and medicine (2.07), national/state politics and social problems (both scoring 2.00), economics (1.95) and culture and the arts (1.70). Local news was the only category that received a below-average mean score (1.24). In terms of medium attributes, the

Internet was fairly satisfactory in all the five categories with, again, "timeliness and updates" coming first (3.99 out of 5), followed by content diversity (3.81), depth of coverage (3.74), the way news is presented (3.71) and representation of different viewpoints (3.60).

We also constructed two indices indicating online news users' overall satisfaction with the medium in terms of news content and attributes by taking the mean gratification of all the single characteristics presented above. For instance, if an online news user gave two on "the way news is presented" on the web, three on "timeliness and updates", four on "depth of coverage", four on "representation of different perspectives" and two on "diversity of content", then his/her mean total satisfaction with the medium is (2 + 3 + 4 + 4 + 2)/5 = 3. Both indices are highly credible with Cronbach alpha coefficients of .86 (news content) and .87 (news attributes). Overall, the medium was given a mean of 1.94 for news content and 3.77 for medium attributes. It must be noted that although satisfactory, these medium satisfaction scores of online news did not reach very high, being still more or less below the scores indicating the "helpful" level (2) and the "satisfied" level (4). This suggests that the web as a news medium is not really perceived as "powerful" as it has been widely touted by many news practitioners and commentators.

Potential obstacles to online news adoption/usage

As for oft-mentioned potential problems of online news usage (Table 6), this survey finds that all of them had been experienced by the majority of online news users. While encountering false news items and being irritated/insulted in online news exchange were not substantial problems (being experienced often or very often by no more than 20% of online news users), the others were notable. In particular,

- 38% of users frequently found themselves being lost among too much information on the Internet;

- more than three in ten (31%) were frequently tired from reading news onscreen; and
- 56% frequently found it frustrating to encounter advertisements inserted in the body of news stories – a very common practice by online news providers.

In order to further explore some of these problems and other obstacles to online news adoption/usage, we asked those who were using the Internet without adopting online news why they did not. The results (Table 7) reveal that credibility is not an issue – with only 6% of the relevant respondents saying they did not get news on the Internet because they did not trust information on it. The demanding effort of reading onscreen did have an effect but were still cited as a reason by a minority (32%) of these Internet users. The overwhelming reason was that they found the news they received from other sources was already enough (77%). Other reasons include the lack of time resources (47%) and, rather interestingly, inconvenience of use (32%). Of those who chose "Other reasons" with a specification, there were some noteworthy points for future research into online news. Nine respondents did not want online news because it would alter their established media routines/tastes, namely their "old" ways of using news. Responses range from simple statements like "I enjoy reading" to rather complicated reasons such as:

- "(I) prefer to hear (*sic*) news while driving or see nightly news on TV or browse the newspaper."
- "I prefer the feel, look, smell and sense of (reading) a newspaper and discussing its content."
- (I) prefer to have the whole article in front of me rather than have to scroll through all the time."
- "I 'edit' my news: I am selective. This is easier with paper news. (Also,) car radio news is 'compacted' by the medium."
- "(I) never thought about using the Internet to gain access to the news. It would be a waste of download when the news is on TV every hour or half hour at night."

- "(I) prefer to watch TV with other family members. % usage is anti-social in some respects."
- "Because I get news in my relaxation time – i.e. casually reading the Sunday paper, watching at night after housework/children bed time, (or) listening to the radio whole working outside in my garden. <u>Why</u> would I strain my eyes, sit at a computer in a stuffy room to get the news? Get a real life please."

Four people said they simply had no interest in receiving online news – quotes including "Not interested"; "(I) really don't care. I subscribe to the notion that no news is good news"; "I'm just not interested. Most of it is too depressing"; and "I'm not interested in searching for news when I could be doing other things". Bandwidth was a matter for three people. A 50-year-old female in a large town specified that she did not access the Internet regularly (therefore did not get news) because "I only have dial-up connection". A 41-year-old male professional was even more "bitter" in his tone: "For what it's worth, I would be very interested in using the Internet as a primary news source. However, our exchange is not ADSL-enabled and we only have dial-up." The third, a narrowband Internet user, simply cited the "cost factor".

Another (a 32-year-old female respondent doing home duties and living in a small town) cited a combination of cost and Internet accessibility as the reason: "I use Internet cafes to access the Internet. Too expensive to stay on to read news. I can't afford to have connection at home. Would love to but (it's) not a financial priority at the moment." The last respondent with a specific answer was trying to reduce the amount of time spent on the computer: "I hadn't thought about getting the news online – as I limit my time at a computer screen and generally when I finish working on a computer, I don't want to start hooking up the news".

Further analysis: the potential development of online news

The above data suggest that a decade after its first penetration into Australian society, the Internet as a news medium has gained a considerable importance in Australian daily life – although its penetration still remains within an "elite" circle. Much of its touted power, including its immediacy and content richness as well as the availability of on-demand news services and participation opportunities, has been experienced in one aspect or another by the majority of early online news users (and frequently taken advantage of by a substantial proportion of them). Specifically, it appears that hypertextual links to related information, the availability of a limitless range of news services, continuous updates, searchability and email-enabled news/information exchange/dissemination seem to be the most popular features. Although services that make news consumption easy and convenient online (such as email news alerts) have not reached the majority of online news users, the ability to combine news usage with other purposes was reported as a fairly important reason for online news consumption. To a lesser extent, the free dissemination of news on the web is also seen as an advantage. Collectively, these features substantially contribute to keeping adopters with the new news medium.

For the most part, these findings are in line with the few empirical studies that have explored the same issue to some extent. For example, Weir (1999) found that the availability of breaking news is a predictor of online news adoption (explaining for around 3% of variance in both the online and phone samples of the study). Wu and Bechtel (2002) found that disruptiveness ("the timely, urgent, breaking characteristic of news") was positively correlated with traffic to the *New York Times* on the web. In studies of online news usage during "big times" like the Iraq War and the 2004 American Election (conducted by the Pew Internet & American Life Project), updates, wider range of viewpoints and convenience are among the most cited reasons for Americans to go online for news and information[6]. In a recent commercial study (conducted by Nielsen//NetRatings for washingtonpost.com among 2009 American online news users three months after our survey[7]), the Internet was reportedly chosen thanks

to its 24/7 availability (83% of respondents), the ability to multitask (70%), breaking and up-to-the-minute news (66%), easy ways to get information (63%), no cost (63%), convenience of use (61%) and the availability of a wide variety of sources (55%).

Another noteworthy finding is that a large majority of online news users often or very often scan/skim stories rather than read them word by word. This is consistent with a 1997 survey which found that 79% of Internet users scan rather than read. While this is indeed no different from the way people read newspapers, more research into why this continues to happen on the web is worth doing. For now, four tentative reasons offered by web usability expert Jacob Nielsen (the author of the above study) are noteworthy. Accordingly, people scan on the web because (1) onscreen reading is tiring for the eyes and about 25% slower than print reading; (2) the nature of the web as a user-driven medium makes users feel that they have to move on and click on things; (3) users' attention is simultaneously drawn to hundreds of millions of competing pages; and (4) users do not have enough time to work too hard for their information[8].

However, some of the findings might not please some media practitioners and commentators. For example, multimedia content – one widely touted technical feature of web-based news, has not been experienced to a considerable extent. This, however, is understandable, given the sluggish uptake of broadband technology in Australia (National Office of the Information Economy 2003) and the general shortage of investment in multimedia ventures by the news industry both in and outside Australia (Gunter 2003). Also, apart from email news communication and sharing, other forms of participation enabled by the interactive nature of the web such as weblogs have not reached a critical mass in Australia. It must be noted, however, that participation means something very active on part of the user; therefore a small percentage on some of the variables related to this might be able to be considered significant.

All in all, while there are some considerable problems associated with online news usage (the physical demand of onscreen reading, information overload and embedded ads), the Internet has shown itself to be a fairly compelling news medium[9]. Not only its major attributes are appreciated but also traditional news needs (except local news) are well-served on the web. With an overall mean of 3.77 in terms of major news attributes, however, the medium might not be seen as powerful as it is widely assumed from a technology-determinist point of view. Despite this, a further exploration (tables not shown) suggests that online news users gave higher satisfaction ratings to the Internet than to all or most traditional news sources in both form and substance. Particularly, the Internet was considered second to newspapers in terms of the way news is presented (3.71 versus 3.79), depth of coverage (3.74 versus 3.86) and diversity of news content (3.81 versus 3.86); second to radio in terms of timeliness and updates (3.99 versus 4.08); and second to none in terms of the representation of different perspectives. As a whole, the 3.77 overall satisfaction score of the Internet was on top of the list of all news sources (the second highest mean score, 3.71, was given to newspapers; and the lowest, 3.25, to magazines). In order to explore the result of experiencing online news at a more intimate level, we also asked respondents some items indicating their enthusiasm about online news. The results are as follow:

- Half of users identified themselves as fans of online news. Given its early stage of development, this is a significant proportion although it is still lower than affiliation with most traditional news media (60% being fans of television news, 56% of newspapers, 53% of radio news and 18% of news magazine).

- More than a quarter (27%) chose the web as the best medium to serve their news needs – compared to 27% for newspapers, 28% for television, 18% for radio and virtually none for magazines.

- More than three quarters had some (46%) or a great deal of belief (31%) that the Internet would become the most important news source in the future.

Thus, if innovation diffusion can be understood as a communication process in which people create and share information of an innovation in order to reach a mutual understanding of this new idea/technology (and therefore near-peer interpersonal communication networks play a significant role in persuading potential adopters) (Rogers 2003), it appears from the data that online news has a notable potential to foster wider adoption in the years ahead. Indeed, more than six in ten online news users in our sample had often (7%) or sometimes (55%) shared their online news experience with peers. More importantly, two-way tables show that

- 66% of these people also identified themselves as online news fans;
- 89% had some or a great deal of belief that the Internet will become the most important news medium of the future; and
- nearly a third picked up the Internet as their best news medium – compared to only 25% choosing TV and around 21% for both newspapers and radio.

The future of the Internet as a news medium, therefore, seems promising. But whether current Internet users who have not adopted online news are persuaded by those who have and have enjoyed it is another matter needing further exploration at deeper levels. We believe that this will involve the many effects of structural factors (such as users' socio-economic backgrounds and Internet accessibility) as well as their communication needs and behaviours (such as attitudes to and needs for the news, habits of news usage, attitudes to new media technology, Internet experience and so on). Some of the factors cited above by those using the Internet without receiving online news would not only affect adoption but also the level of online news usage. This, however, is beyond the scope of a report that aims solely to provide the first set of data about general

patterns of online news consumption in Australia. Several theoretical-testing papers concerning these dynamics of online news adoption and usage will be produced later from this survey.

Notes

(1) While web technologies allow news providers to track users' online behaviours, they can only provide some hints about how the medium is used but cannot tell why it is used. Also, these commercial data are seldom publicly available and even if they were, they could not reflect what happen in the general online news population, which needs some systematic random sampling.

(2) The first author is grateful to his "Vietnamese corps" at the University of Queensland, especially Doan Nhat An, Phan Thanh Binh, Le Canh Duong, Do Thanh Nhon, Nguyen My Phuong, Phi Dang Son, Nguyen Hong Thanh, and Dao Ngoc The Vinh, for their enthusiastic and responsible help in the bulk of manually numbering the questionnaire forms, putting them into envelopes and bringing them to the post office as well as in data entry. Meg Tighe and Warren Laffan at the UQ Social Research Centre generously offered much free help during data collection. Thanks are also extended to the UQ School of English, Media Studies and Art History for its supportive $5,000 budget and other resources.

(3) This list is not at all comprehensive. It comprises only those services that are popular on today's news sites inside and outside Australia (based on our observations during 2001-2004). Promising but still too new services such as RSS (Rich Site Summary or Really Simple Syndication) were not included.

(4) We would have liked to include some other important news categories (such as education) but for practical reasons and for the purpose of exploring general satisfaction with online news content, this list was decided to be adequate. Also, although there are other factors that might have a direct influence on medium choice, only five attributes were chosen because of questionnaire length restraints.

(5) Perceived "helpfulness" is a classic indicator of obtained gratifications from media consumption in uses and gratifications research (see Katz, Gurevitch & Haas 1973).

(6) Published reports/presentations and datasets of these studies are available at http://www.pewinternet.org.

(7) A PowerPoint presentation of this study's general findings can be found at http://www.washingtonpost.com/wp-srv/marketing/presentation/nielsen/content/frame.htm

(8) Available at http://www.useit.com/alertbox/whyscanning.html

(9) Here the term "medium" is tentatively used to mean a news platform that is separate from television, radio, newspapers, and magazines. Whether it is a well-meaning "medium" is open to debate. It can be seen simply as a platform for multimedia news presentation, distribution and reception. Or in a more complex sense, as Paul Levinson (2003: 36) has argued, the Internet is "a medium of media" – a place where other media happen: "The Internet … conveys information in every form known to every human medium in history – speech, picture, writing, motion pictures, and so on. The Internet offers books, magazines, newspapers, movies, videos, radio, television. Indeed, it may be used as a telephone as well." We thank one of the anonymous reviewers for pointing us to Levinson's argument.

Table 1: Comparison between the sample and the 2001 Census data in terms of age and sex (by percentage)						
	Male		**Female**		**Total**	
Age categories	Sample	Census	Sample	Census	Sample	Census
18-29	3.7	22.6	8.1	21.3	5.6	21.9
30-39	11.9	20.3	18.8	20.1	15.0	20.2
40-49	23.4	19.8	21.2	19.4	22.4	19.6
50-59	23.7	16.3	21.8	15.3	22.8	15.8
60-69	19.8	10.5	15.8	10.2	18.0	10.3
70+	17.5	10.5	14.3	13.7	16.2	15.2

Table 2: Sources of news online: uses and preferences (by percentage of online news users)	
Where people go for news online (minimum n = 207)	
Newspapers' sites	78
Magazines' sites	45
Broadcasters' sites	62
News agencies' sites	21
Accumulated news sites	64
Non-mainstream sources	25
News/information exchange sites	9
Other sources	<1
Top news sites (sites identified as "most favoured" by at least 3% of users, n=180)	
ninemsn.com.au	19
abc.net.au	14
smh.com.au	12
news.com.au	8
theage.com.au	7
news.google.com	6
news.yahoo.com	4

Table 3: How users have taken advantage of exclusive online news features (by percentage of online news users, minimum n = 210)		
	Yes	**Often/Very often**
Convenience of use		
Subscribe to email news alerts of general news	16	N/A
Set favourite news home page as default front page of web browser	32	N/A
Get news via a mobile device	6	N/A
Content richness		
Visit a number of sites for same news item	73	26
Click on links to related stories for in-depth information	90	46
Find other perspectives from non-stream news sites	57	16
Immediacy		
Get up-to-the-minute news several times a day	70	26
Use the Internet as the first medium to check something that has just happened	47	N/A
Multimedia		
Get audio news	48	15
Get video news	45	15
Scan/skim rather than read stories	88	66
Print out some news items for later usage	52	16
News on demand		

Use search tools to find news of your interest	88	42
Subscribe to email news alerts tailored to your interest	24	N/A
Set up a personalized news page	22	N/A
Participation opportunities		
Participate in online news polls	48	17
Go to an information exchange site to have your say	21	4
Receive links to news stories from peers	50	8
Send links to news stories to peers	40	6
Pass information you have just heard or witnessed	71	27
Have heard terms like "weblogs" or "blogs"	28	N/A
Read weblogs	11	4
Post comments on weblogs	4	<1

Table 4: **Reasons for using online news (mean value*)**	
Please respond to the statement starting with *I get news online…*	
… because I don't pay for it	3.15
… because I can combine getting news with other purposes online	3.87
… because I have more news choices on the Internet	3.51
… because I can look for in-depth and background information whenever I want	3.65
… because I can find different viewpoints on the Internet	3.15
… because I can check for updated news whenever I want	4.11
… because I can get news tailored to my interest only	3.47
… because I can have my say to the news media	2.45

… because I can discuss news and current affairs with my peers	2.64

* 1 = "Strongly disagree"; 3 = "Neutral"; 5 = "Strongly agree"

Table 5: Obtained gratifications from online news in terms of news content and medium attributes (mean values)

To what extent do you find the web helpful to follow the news types listed below?[a]

National/state politics	2.01
International affairs	2.30
Economics (including business and finance news)	1.95
Entertainment/Sports	2.22
Science and medicine	2.06
Social problems (crime/disasters/accidents)	2.00
Cultures and the arts	1.70
Local community affairs	1.24
Overall evaluation of online news content	1.94

To what extent are you satisfied with the Internet in terms of the following?[b]

The way news is presented	3.71
Timeliness and updates	3.99
Diversity of news content	3.81
Depth of coverage	3.74
Representation of different viewpoints	3.60

Overall evaluation of online news attributes	3.77

a) 0 = "Not at all helpful"; 1 = "Not very helpful"; 2 = "Helpful"; 3 = "Very helpful"
b) 1 = "Very unsatisfied"; 3 = "Neutral"; 5 = "Very satisfied"

Table 6: Responses to some common potential problems of online news usage

(by percentage of online news users, minimum n = 206)

How often do you find yourself…	Never	Not very often	Often	Very often
… being lost among too much information on the Internet	6	56	27	11
… missing some important news that you should know after an online news session	17	67	16	<1
... being tired of getting news on the computer screen	12	57	28	3
… encountering false news online	27	60	13	<1
… being irritated or insulted in an online news/information exchange network	50	38	11	1
… being frustrated with advertising inserted in the body of online news stories	12	32	35	21

Table 7: Reasons for using the Internet without adopting online news (by percentage of those using the Internet without using its news, minimum n = 304)	
Online news not convenient to use	32
Not enough time for news when online	47
Other news sources already enough	77
Don't trust information on the web	6
Find it tiresome reading on computer screen	32
Other reasons	5

References

Abdulla, R., Garrison, B., Salwen, M., Driscoll, P. & Casey, D. (2002). "The credibility of newspapers, television news and online news." Paper presented at the annual convention of the Association from Education in Journalism and Mass Communication. Miami Beach, 9 August.

Appleyard, Bryan (1999). "Under the net." *New Statesman.* 128 (4457): 56.

Australian Bureau of Statistics. (2004). "Innovation and Technology Update." *Bulletin No. 11.*

Black, C. (2000). "Don't write off newspapers yet." Accessed on 21 April 2001, from http://www.wan-press.org/guest.column/black.html.

Boczkowski, Pablo (2004). *Digitising the news: Innovation in online newspapers.* Cambridge, Massachusetts: The MIT Press.

Bowman, S & Willis, C. (2003). "We Media: How audiences are shaping the future of news & information." Accessed 19 September 2003 from http://www.ndn.org/webdata/we_media/we_media.htm.

Bromley, R. & Bowles, D. (1995). "Impact of Internet on use of traditional news media." *Newspaper Research Journal* 16(2): 14-27.

Brown, C. (1999). "Romancing the abyss." *Fear.com.* Accessed on 3 June 2001 from http://ajr.newslink.org. *Special report* section.

Burnett, R. and Marshall, P. D. (2003). *Web Theory: An Introduction.* NY: Routledge

Chyi, H., I. & Larosa, D. (1999). "Access, use and preferences for online newspapers." *Newspaper Research Journal.* 20(4): 2-13.

Dimmick, John, Chen, Yan & Li, Zhan (2004). "Competition between the Internet and traditional news media: the gratification-opportunities niche dimension." *Journal of Media Economics.* 17(1): 19-34.

D'Haenens, L., Jankowski, N. & Heuvelman, A. (2004). "News in online and print newspapers: differences in reader consumption and recall." *New Media & Society.* 6(3): 363-382.

Dutta-Bergman, M. (2004). "Complementarity in consumption of news types across traditional and new media." *Journal of Broadcasting and Electronic Media.* 48(1): 41-61.

Economist, The (US) (1999). "Caught in the web – Internet may mean the end of newspaper industry." July 17: 17. Accessed on March 24, 2001 from InfoTrac database.

Fidler, R. (1997). *Mediamorphosis: Understanding new media.* London: Pine Forge Press.

Fidler, Roger F. (1998). "Life after 2001: Redefining print media in the cyberspace." *Future of the print media.* Online journal. Accessed on 27 March 2001 from http://www.futureprint.kent.edu/articles/fidler01.htm

Fidler, Roger F. (1999). "Newspapers in 2020: Paper vs. digital delivery and display media." *Future of the print media.* Online journal. Accessed on 27 March 2001 from http://www.futureprint.kent.edu/articles/fidler04.htm.

Gibson, R., Wilson, S., Denemark, D., Meagher, G., and Western, M. 2004. *The Australian Survey of Social Attitudes, 2003.* Canberra: Australian Social Science Data Archive, The Australian National University.

Gunter, Barrie (2003). *News and the net.* Mahwah, NJ: Lawrence Erlbaum

Harper, C. 1997. "The daily me." *American Journalism Review.* April. Accessed on 16 June 2001 from http://ajr.newslink.org. *Digital feed* section.

Johnson, T & Kaye, B. (1998). "Cruising is believing? Comparing Internet and traditional sources on media credibility." *Journalism and Mass Communication Quarterly.* 75(2): 325-340.

Katz, Elihu, Gurevitch, Michael & Haas, Hadassah (1973). "On the use of the mass media for important things." *American Sociological Review* 38 (April): 161-181.

Lasica, J. D. (1997). "When push comes to news." *American Journalism Review.* May. Accessed on 30 March 2001 from http://ajr.newslink.org. *Digital feed* section.

Lee, P. & Leung, L. (2004). "Assessing the displacement effects of the Internet." Paper presented at the *International Conference on Internet Communication in Intelligent Societies.* Hong Kong, July 8-10.

Levinson, Paul (2003). *Realspace: the Fate of Physical Presence in the Digital Age, On and Off Planet.* London: Routledge.

Mueller, J. & Kamerer, D. (1995). "Reader preference for electronic newspapers." *Newspaper Research Journal.* 16(3): 2-13.

Murdoch, Rupert (2005). "The challenges of the online world." Speech to the American Society of Newspaper Editors. Washington DC, April 13.

National Office of the Information Economy. (2003, April). *Current State of Play, Australia's Scorecard.* Accessed on 30 April 2003, from http://www.noie.gov.au

Nguyen, A (2003). "The current status and potential development of online news consumption: a structural approach." *First Monday*, 8(9). Accessed on 4 September 2003 from http://www.firstmonday.org/issues/issue8_9/nguyen/.

Nozato, Y. (2002). "Credibility of online newspapers." Paper presented at the annual convention of the Association from Education in Journalism and Mass Communication. Miami Beach, August 9, 2002.

Oostendorp, H. & Nimwegen, C. (1998). "Locating information in an online newspaper." *Journal of Computer-mediated Communication.* 4(1). Accessed on 30 August 2002 from http://www.ascusc.org/jcmc/.

Pavlik, John (1998). *New media technology: Cultural and commercial perspectives.* Sydney: Allyn and Bacon.

Pew Research Centre for the People and the Press (2004). "News audience increasingly politicised." Accessed on 21 June 2004, from http://people-press.org/reports/display.php3?ReportID=215.

Prosser, J. (1998). "The rise of online classifieds." *Online Journalism Review.* Online journal. July. Accessed on 7 June 2001 from http://ojr.usc.edu. *Feature* archive.

Quinn, Stephen (2000). "The battle for Australia's eyeballs: An Overview." *Online Journalism Review.* July. Accessed on 7 June 2001 from http://ojr.usc.edu. *Feature* archive.

Robinson, J., Kestnbaum, M., Neustadtl, A. & Alvarez, A. (2000). "Mass media use and social life among Internet users." *Social Science Computer Review.* 18(4): 490-501.

Rogers, Everett (2003). *Diffusion of innovations.* Fifth edition. New York: The Free Press.

Schierhorn, C., Wearden, S., Schierhorn, A., Endres, F., Tabar, P. & Andrews, S. (1999). "What digital formats do consumers prefer?" *Newspaper Research Journal* 20(3): 2-19.

Schultz, T. & Voakes, P. (1999). "Prophets of gloom: Why do newspaper journalists have so little faith in the future of newspapers." *Newspaper Research Journal.* 20:2. Accessed on April 30, 2001, from InfoTrac.

Schweiger, W. (2000). "Media credibility – Experience or image? A survey on the credibility of the world wide web in Germany in comparison to other media." *European Journal of Communication.* 15(1): 37-59.

Sparks, C. (1999). "Newspapers, the Internet and the public sphere." *Review of Media, Information and Society.* April: 51-67.

Statistics Canada (2004). "Households using the Internet from home, by purpose of use." Accessed on 9 January 2005 from http://www.statcan.ca/english/Pgdb/arts52a.htm.

Stempel III, G., Hargrove, T. & Bernt, J. (2000). "Relation of growth of use of the Internet to changes in media use from 1995 to 1999." *Journalism & Mass Communication Quarterly*, 77(1): 71-79.

Sundar, S. (1998). "Effect of source attribution on perception of online news stories." *Journalism and Mass Communication Quarterly.* 75(1): 55-68.

Sundar, S. (2000). "Multimedia effects on Processing and perceptions of online news: a study of picture, audio and video download." *Journalism and Mass Communication Quarterly.* 77(3): 480-499.

Tewksbury, D. & Althaus, S.. 2000. "Differences in knowledge acquisition among readers of the paper and online versions of a national newspaper." *Journalism & Mass Communication Quarterly*, 77(3): 457-479.

Tewksbury, D.; Weaver, A. & Maddex, B.. 2001. "Accidentally informed: Incidental news exposure on the World Wide Web." *Journalism and Mass Communication Quarterly.* 78(3): 533-554.

van Dusseldorp, Monique (1998). "The Internet Age: Threat or opportunity for European printed press." *Future of the print media.* Online journal. Accessed on 27 March 2001, from http://www.futureprint.kent.edu/vandusseldorp01.htm.

Vargo, K., Schierhorn, C., Wearden, S., Schierhorn, A., Endres, F. & Tabar, P. (2000). "How readers respond to digital news stories in layers and links." *Newspaper Research Journal* 21(2): 40-54.

Wa, Hoi Tong (2002). Online news services in Hong Kong: Economic feasibility and future development. Unpublished Masters Thesis in New Media, Chinese University of Hong Kong.

Wearden, S. (1998). "Landscape vs. portrait formats: assessing consumer preferences." Accessed on 25 March 2002 from http://www.futureprint.kent.edu/articles/wearden01.htm.

Wearden, S. & Fidler, R. (2001). "Crain's Cleveland business: evaluating an e-newspaper concept for tablet %s." Accessed on 24 September 2003 from http://www.futureprint.kent.edu/articles/wearden03.htm.

Wearden, S., Fidler, R., Schierhorn, A. & Schierhorn, C. (1999). "Portrait versus landscape: Potential users' preferences for screen orientation." *Newspaper Research Journal* 20(4): 20-61.

Weir, T. (1999). "Innovators or news hounds: A study of early adopters of the electronic newspaper." *Newspaper Research Journal* 20(4): 62-81.

Wu, H. & Bechtel, A. (2002). "Website use and news topic and type." *Journalism and Mass Communication Quarterly*. 79(1): 73-86.

An Nguyen is a science journalist from Vietnam, currently completing a PhD thesis in the School of English, Media Studies and Art History, the University of Queensland.

Liz Ferrier is a Lecturer in Communication in the School of Business, the University of Queensland.

Mark Western is Director of the Social Research Centre and an Associate Professor of Sociology in the School of Social Science, the University of Queensland.

Susan McKay teaches communication, media and cultural studies in the School of English, Media Studies and Art History, the University of Queensland.