Over the last decade, the Internet has had a significant impact on worldwide media consumption.

In a consumer-centric world, few things facilitate consumer choice more than the Internet. Is a transition afoot from ‘looking into’ to ‘logging onto’?

Prima-facie, this seems little more than a rhetorical question. As clear majorities in developed countries now use the Internet regularly, whereas ten years ago this phenomenon was “essentially” unheard of, obviously there’s a shift of some sort. However the Internet is not a phenomenon in isolation. At the same time as the growth in the Internet, and probably related to that growth, there have been increased offerings in all areas of media and life: pay TV, Videos and DVDs, innovative electronic games, color in newspapers, magazines in newspapers, magazines/catalogues in magazines, a dramatic increase in printed material due to widespread availability of desktop publishing and cheaper printing, mobile telephony and SMS, the advent and growth of the compact disc and the associated growth in portable CD players and MP3 players, a greater focus on health and fitness, increased mobility in the workforce, mature age education etc. etc. The issue is complex and multi-faceted.

Yet most research, which has sought to explore this complex issue, has been undertaken from a fairly narrow, even uni-dimensional perspective.

Typically Readership Symposium papers have examined readership of magazines or newspapers (not both) and provided insight into only a single country. This is understandable as today, most newspaper and magazine readership studies cover only one medium use broad metrics such as gross readers or time-spent-reading. So this is the data from which researchers have had to make assumptions about changes in behaviour.

The analysis in this paper takes an eclectic approach to the question. It draws on time-series data; multi-media data (newspaper readership, magazine readership, television viewing, radio listening, and internet usage); multi-country data (USA, UK, Australia, and New Zealand); consumer self-assessment of the impact of the Internet on their behavior; and second-by-second electronic consumer responses to reading material “on” and “off” line.

Specifically, research conducted by Roy Morgan International in the United States, United Kingdom, Australia and New Zealand was used to evaluate time-series trends in media usage; cross-sectional and cross-country analysis of what Internet users said they did on the Internet, including people’s reported self-assessments of changes in their media consumption since accessing the Internet; “time spent” with each media; and detailed subgroup analyses.

The research findings are derived from both qualitative and quantitative studies conducted by Roy Morgan International.

Analysis of quantitative data collected from a “single source” (i.e. the same respondents were asked about all media) identifies overlaps and determines directly the extent to which the Internet is replacing or adding to elements in the current media mix. The measures include:

- Newspaper and magazine readership, and other media usage;
- Internet usage in general and for particular purposes, including reading newspapers and magazines on-line;
- Time spent with each media; and
- Readership of specific titles on the Internet.
Qualitative data based on second-by-second electronic consumer response measurement using *The Worm*, is also examined to compare how people interact with reading material ‘on’ and ‘off’ the Internet.

**Setting the Scene: Media Consumption**

Chart 1 shows Australian media consumption changes from 1994 to 2002 from Roy Morgan Single Source. Since 1996, when the Internet was first measured, Internet penetration (accessed at least monthly) has grown to over 60%. However despite the growth in Internet usage in Australia, the number of people reading newspapers and magazines, and watching television has remained fairly stable. The number of people who reported listening to radio has shown a steady decline. This is probably less attributable to a growth in Internet and more likely to be due to competition from portable CD Players and car CD players. (As shall be shown soon people did not single out radio as the medium they particularly spend less time with since they began using the Internet)\(^1\)

An international perspective using Roy Morgan Single Source (refer Chart 2) suggests a similar situation probably exists in the United States, United Kingdom and New Zealand. Television has the highest penetration of all media across all four countries - ranging from 94% in the United States to 99% in New Zealand (based on viewing in the last 7 days).

Consistently in all countries, television was followed by the other traditional media in the order, magazines, newspapers and radio. Internet ranked below the traditional media consistently across countries except in the United States, where the Internet (at 76% penetration) reaches more people than newspapers (at 70% penetration).

In order to understand whether the lower penetration of newspapers in the United States might be attributable to the Internet an analysis was undertaken of people in the United States who don’t read newspapers. A profile of the Americans who haven’t read a newspaper in the last 7 days showed that (compared to the population) they are at the lower end of the socio-economic scale. It is unlikely that literacy levels for this group are behind their lack of newspaper readership given that the United States has the highest penetration of magazine readership (92%). However as they are less likely to use the Internet there is no evidence of Internet substitution for newspaper reading.

Essentially it appears that the Internet has added to the repertoire of media that people use or consume, i.e. they don’t “stop” using television, newspapers, or magazines altogether. The issue is more likely one of degree.

This is the “64 million dollar question” posed by Deniz and Lynch in 1999: “How much time spent with multiple sources impedes on the amount of time spent with other media?”

\(^1\) As the primary focus of this paper is the impact of the Internet on Print Readership, the full analysis of available data on the impact on radio was not included.
Effect of Internet Usage on Media Consumption

To explore the question of the degree of impact the Internet has had on media consumption, the perceptions, and reported behaviour of regular Internet users was examined in terms of:

- Reported changes in their media consumption since using the Internet;
- Amount of time spent with each medium; and
- Internet behaviour (what people regularly or occasionally use the Internet for).

Reported changes in media consumption: Internet users were asked about the impact of the Internet on their media habits. For each media, they were asked whether they used it “more often”, “about the same” or “less often” since they began using the Internet.

The majority of regular Internet users in each country reported no change, saying that they used each media “about the same” (refer Chart 3). For these people, Internet use has not had any impact on their media habits. However, a significant number of regular Internet users reported using media “less often” (between 10% and 21% depending on the medium and the country).

Few regular Internet users (between 1% and 8%) reported increased usage of some media since taking up the Internet. It must be noted again that Internet take-up does not occur in a vacuum - for instance if the Internet were taken up in the mid teens, this is the same time that newspaper readership would generally begin, so for these people Internet usage would be associated with greater use of newspapers.

The data also shows that television was the media most affected by Internet use (refer Chart 4). In all countries surveyed, television had the highest percentage of Internet users reporting they used this media “less often”. This is supported by other research on “when” people use various media. Internet and television generally being used in the evenings, and newspapers being more generally read in the morning.

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2 This paper focuses on analysis of “regular” Internet users, defined as those who had accessed the Internet at least weekly.
3 Source: Roy Morgan Single Source – Media Preferences – United States, United Kingdom, Australia and New Zealand
The cross-country comparison suggests the Internet has had a greater impact on other media in the United States, than in other countries. A higher percentage of people in the United States reported watching television and reading newspapers “less often” since they started using the Internet (compared to other countries surveyed).

Results for the United States show:

- 23% of Internet users watched television “less often” since they began using the Internet (compared with 22% United Kingdom, 20% Australia and 21% New Zealand); and
- 15% read newspapers “less often” (compared with 11% United Kingdom, 10% Australia, 10% New Zealand).

As a check on these self-reports, an analysis was undertaken of actual “hours spent” with each media, comparing those claiming to use the medium “less often” versus those saying “about the same”. The analysis suggested respondents’ self-reports were at least directionally correct.
Chart 5 shows regular Internet users in the United States who reported watching television “less often” watched on average 16.5 hours television per week. This was indeed lower than the average 20.4 hours per week watched by people who reported watching television “about the same”. Put another way, those people who report now watching television “less often” spent 19% less time or 3.9 hours less a week watching television than people who reported using the Internet hadn’t changed their television habits.

Similar patterns emerged for the other media. Regular Internet users who reported listening to the radio “less often” since they began using the Internet spent 32% less time than those who said they listened to the radio “about the same” since they began using the Internet (9.9 hours compared to 14.5 hours per week).

Regular Internet users who reported reading newspapers “less often” since they began using the Internet spent 26% less time reading newspapers (3.8 hours per week compared to 2.8 hours). Regular Internet users who reported reading magazines “less often” since they began using the Internet spent 35% less time reading magazines (2.2 hours per week compared to 3.4 hours).

The impact of heavy Internet use on media consumption is further evidenced by the fact that regular Internet users who reported using the various media “less often” also spent a greater amount of time on the Internet (16.3 hours on the Internet per week) than those who said their media habits hadn’t changed since using the Internet (12.1 hours on the Internet per week).

Charts 6 and 7 below show a similar pattern of results for Australia and New Zealand (i.e. regular Internet users who reported using the medium “less often” did in fact spend less time with the media compared to those saying “about the same”).
As a further check on self-reports, an analysis was undertaken of available historical data.

Time series data on hours spent with each media is somewhat limited. However, analysis undertaken using available data in Australia shows a slight downward trend in commercial television viewing, commercial radio listening and newspaper readership over the last ten years. The historical data is presented in Chart 8.

Amount of time spent with each media: Roy Morgan Single Source has detailed accurate cross-country data on hours spent watching television, listening to radio, reading newspapers, reading magazines, and using the Internet.

The data shows, irrespective of country, broad consistency in time spent with the major or traditional media. The ‘time spent’ with each media reflecting the same pattern as penetration of each media (reported earlier and shown in Chart 2). The data also shows that radio accounted for a significant amount of time spent with media. The amount of time spent on the Internet was highest in the United States (8.1 hours or 15.7% of time spent with media) and lowest in the United Kingdom (4.6 hours or 8.6% of time spent with media).

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4 Available data includes categorical data on time spent on commercial television viewing, and commercial radio listening (categories are 4+ hours per week, 1-3 hours per week, and less than 1 hour per week)

5 Time spent with TV and Radio includes both commercial and non-commercial stations, and Internet includes a large amount of time spent on email and instant messaging. The percentages do not allow for multi-tasking (i.e. reading and listening to radio at the same time for 1 hour would count as 2 hours - 1 hour reading and 1 hour listening to the radio).
In terms of print media, the United Kingdom has the highest proportion of time spent with newspapers and magazines (9.9% and 6.9% respectively). The United States has the lowest percentage of time spent reading newspapers (7.4%). Australia and New Zealand have the lowest percentage of time spent reading magazines (5.3% and 5.2%).

Table 1 – Time spent in an average week in hours with each media across 4 countries

<table>
<thead>
<tr>
<th>Time Spent</th>
<th>US</th>
<th>UK</th>
<th>Australia</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg Hours</td>
<td>% of Time</td>
<td>Avg Hours</td>
<td>% of Time</td>
<td>Avg Hours</td>
</tr>
<tr>
<td>Watch TV</td>
<td>21.4</td>
<td>41.2</td>
<td>24.3</td>
<td>45.5</td>
</tr>
<tr>
<td>Listen to Radio</td>
<td>15.1</td>
<td>29.1</td>
<td>15.5</td>
<td>29.1</td>
</tr>
<tr>
<td>Read Newspaper</td>
<td>3.8</td>
<td>7.4</td>
<td>5.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Read Magazines</td>
<td>3.4</td>
<td>6.6</td>
<td>3.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Use Internet (all places)</td>
<td>8.1</td>
<td>15.7</td>
<td>4.6</td>
<td>8.6</td>
</tr>
<tr>
<td>Total Time</td>
<td>51.9</td>
<td>100</td>
<td>53.3</td>
<td>100</td>
</tr>
</tbody>
</table>

So what is it about the US? Why has the Internet had a greater impact in the US than the other 3 countries analysed?

It may be that the difference relates to “time” – ie that the Internet is at a later stage of maturity in the US than in the other countries. And that although Australia and particularly New Zealand have adopted the Internet quickly, it is still relatively new (relative to the more mature US market)

However to assume it’s “just a matter of time” would be naive, and scientifically “sloppy” – especially when there’s clearly more to it than just that. The next phase of the analysis was therefore an examination of what people are actually using the Internet for.
**What people use the Internet for:** Even a cursory review of what people use the Internet for reveals that the Internet is more than just a substitute or alternative for traditional media – it is also a form of communication, a means of conducting financial transactions, a form of global encyclopaedia, and more.

Chart 10 below shows that “email” is the most frequently mentioned use of the Internet. Among “regular” Internet users in the US, 93% report using “email”, as do 88% in the United Kingdom, 92% in Australia, and 95% in New Zealand, “Socialising and entertainment” was another significant use of the Internet, mentioned by 65% of “regular” users in the United States, 64% in the United Kingdom, 54% in Australia, and 53% in New Zealand.

Email is obviously qualitatively different than traditional media, as is “socialising”. They are more akin to correspondence – letters, telephone, fax, and other social intercourse. Other uses of the Internet mentioned by a majority of “regular” Internet users in each country were “accessing general information, and “academic/business research”. “Shopping and paying bills” was reported by more than 40% of “regular” Internet users in each country (46% in the United States, 40% in United Kingdom, 48% in Australia and 42% in New Zealand).

Of significance, however, is that “reading newspapers / magazines” on the Internet is highest in the United States (26% of “regular” Internet users) compared to the other countries surveyed (13% in the United Kingdom, 20% in Australia and 20% in New Zealand).

Obviously, while Internet use in New Zealand is high, (at 76% penetration it is the same as the US) this is driven predominantly by “email” (not a substitute or alternative for newspapers or magazines). Whereas, in the United States, Internet usage is associated with high usage for general information and relatively high reading of newspapers and magazines on the Internet – both a substitute or alternative to “hard copy” reading.

There is a fundamental difference between “email” and “newspaper / magazines on-line”. “Email” is essentially driven by consumer demand, while “newspaper / magazine on-line” are very heavily dependant on supply – if the publishers don’t produce newspapers and/or magazines for the Internet, or don’t do it well, consumers won’t read or use them.

**Looking ahead**

The media industry is at what Andrew Grove, President and CEO of Intel in his book “Only the Paranoid Survive” calls a “strategic inflection point”, and much of it has to do with the Internet – and the threats and opportunities it creates. Andy Grove points out that at times like these there will be winners and losers. Yet …

“So far, no publisher has unlocked the business formula of the Internet.”

Indeed in a confidential discussion with the editor of a major newspaper he reported, “40% of the revenue has gone due to Internet based employment services”.

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A high-level time-series analysis of Roy Morgan Readership Survey results for individual major Australian newspapers shows a relatively stable pattern over the period of Internet growth (refer Chart 11). Prima-facie this suggests that at an individual title level the impact has been marginal. However it is essential to look beyond broad trends. All publishers are confronted with pressure on readership levels among the top socio-economic (who are increasingly using the Internet for business and international market information, as well as being “on-line” at least for “email” all day – “24/7” some claim).

As already mentioned, the Internet is not a phenomenon in a vacuum – so it is dangerous to assume the relatively flat trends in individual newspaper titles means the Internet has not had much of an impact. A more plausible interpretation might be that publishers have managed to “hold back the tide” with a range of initiatives – inserted magazines free with newspapers designed to broaden appeal, and increase “readers-per-copy” of newspapers; extensive, and creative “sampling” drives eg free newspapers in hotels, on airlines, schools etc; and heavily discounted subscription offers. In addition publishers are responding to the Internet challenge by using the Internet in conjunction with their titles.

For instance, publishers (unrestricted by the demands of printing, distribution, etc.) are competing with television and radio by using the Internet for breaking news. Readers are being enticed to a publication’s website as it provides current headlines and cover stories. There are a plethora of models for this – some require subscription, others are free; some provide more information than the newspaper (and possibly more current), and links to source documents, such as Company Reports, or Company Web-sites; some provide a library/reference type service allowing look-ups of historical material, while others have chosen to make their offering “current” but without what might be called “historic back-up”.

The consumer response – as measured by actions – reading “hard copy”, “on-line”, or both, provides interesting insights into this complex scenario – with its interesting combination of supply and demand factors.

Newspaper readership on the Internet is greater in the United States than Australia. Major titles such as The Financial Times, New York Times, Investor’s Business Daily, and Washington Post all have sizeable readership at their Internet sites. The overlap of people who read the “hard copy” and on-line editions is also greater in the United States than in Australia. Charts 12 and 13 show the percentage of readers who read the “hard copy” and the Internet newspaper for some major national and state titles in Australia and the United States.

Internet readership is greater for some titles than others. Differences in Internet readership are understandable in terms of:

- **Socio-economic status**: In Australia, The Australian, The Sydney Morning Herald, The Australian Financial Review, and The Age have extended their readership reach through readership on their Internet sites. Readers of these titles are drawn proportionately more from the high socio-economic “AB” segment, than are readers of the Daily Telegraph and the Herald Sun.

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7 In the United States edition
8 The published Roy Morgan Readership figures represent “average issue readership” for the printed version of the publication (this is equivalent to that part of each bar-chart representing “hard copy” only plus “both hard copy and on-line”)
- **Financial/ business relevance**: Publications with financial and business information eg Financial Times (in the United States), Investor’s Business Daily, The Australian Financial Review, and The Australian have stronger Internet usage than the more general information newspapers.

- **Free versus paid access**: In Australia, of the two national business newspapers The Australian that has free Web-site access, has a higher Internet reach than The Australian Financial Review, which has paid subscriber access to its Internet content. Similarly The Wall Street Journal, with paid subscription, has a much lower Internet take-up than other US financial/business newspapers, which provide free access.

- **Web presence and timing**: Fairfax publishes both The Sydney Morning Herald, and The Age in Australia, yet The Sydney Morning Herald has a much stronger Internet usage than The Age. Although both sites are based on a similar formula, The Sydney Morning Herald was given greater focus earlier than The Age site, and benefited from the Sydney Olympics, which obviously gave an added purpose, focus and immediacy to the site.

- **Broad geographic relevance combined with local distribution**: The Washington Post, with its political focus, yet broad national (even international) appeal, typifies this phenomenon. Similarly Investor’s Business Daily is fairly local in its distribution (heavily focussed in its LA heartland), but has broad financial appeal, and a solid financial reputation.

- **Classified Sections**: Those newspapers that draw readers through their classified sections (e.g. The Sydney Morning Herald and The Age) are in an “interesting position”. Today, these newspapers have a greater overlap for their newspapers (i.e. both these newspapers have more readers who read both the “hard copy” and the “on-line” editions in a given week than readers of other newspapers).
Little has been discussed about magazine readership on the Internet. A review of several popular magazine sites shows that the site content is fundamentally different to the content of the magazine. Magazine sites today appear typically to be more about promoting the magazine and rather than representing an alternative or substitute to the “hard copy” version the site is directing visitors to read the “hard copy”.

Nevertheless, Internet readership poses a challenge for both newspaper and magazine publishers.

As pointed out in the McKinsey paper: "Instead of merely redeploying selected material to create a web presence, print publications should embrace a new business model that seamlessly joins the two communications media so that each complements and enhances the other.”

If as was claimed at the beginning of this paper, the Internet facilitates consumer choice, then success must begin with a good understanding of the consumer – and the choices he or she will make, and how he or she reacts to the different choices on offer. (That is not to say that the pricing, and bundling are irrelevant – far from it. The point is pricing and bundling will only work if they represent some kind of value for the consumer, i.e. if he or she wants the bundle or needs it.)

Success will also depend critically on delivering value to “he or she who pays”. To the extent that the model continues to be based on advertising revenue, it is essential that the new business model delivers value to the advertiser – essentially that it “works”, and ideally better or more efficiently than the traditional media.

Using second-by-second electronic consumer responses, Roy Morgan International, using the latest “Worm” technology and science, is beginning the process of understanding and measuring consumers’ responses to various stimuli across different media. This obviously has relevance for both the tasks just described.

While The Worm has for many years been used to show how people respond to television and radio advertising, over the last 12 months, Roy Morgan International has developed The Worm to more accurately measure how people feel about what they see and read in newspapers and magazines, and to extend “Worm” science to Internet sites, and SMS.

By converting all “source” material to video, The Worm can now measure responses to print, posters and the Internet as well as television, radio and cinema. Not only does this provide the most accurate method to date for measuring responses to different media it allows cross media comparisons; and allows for analysis of the combined impact of more than one medium eg newspapers and web-sites.

The Worm shows how people interact with different media. The data helps explain the role of each media, providing a measure of specific television programs, newspapers, magazines and websites – which work best, as well as, the impact of their creative differences.

This new Worm research method evaluates both at the broad level (i.e. do people respond better to television or print) and the specific level (i.e. do people respond to a particular advertisement better if in one magazine rather than another, in one web-site rather than another, in one form over another).

For instance, Worm sessions have revealed that:

- A print advertisement is capable of achieving a similar Worm rating as a television commercial across a wide range of categories. However, sometimes one medium will do better than another, because of the impact of the fit of the creative and the medium.

- For some advertisements, Worm ratings differ by media (a television commercial rates higher than the print advertisement or vice versa). However, more importantly, the same ad can achieve different Worm ratings within the same media suggesting that not all television programs or print publications work as well (even with the same ad).

Time Inc. in Australia have recently demonstrated the contextual power of their magazine “Who” (this is People in the United States) by showing that across several categories the same ad was responded to better in “Who” than their competitor.

The Worm has the ability to look at how people interact with a newspaper or magazine and its’ website. This enables publishers to understand how to win their readers over, and enables both publishers and advertisers to understand how to effectively use each media.

Worm respondents rate different newspapers and their websites by viewing scanned editorial pages (literally by watching a screen as the camera scans down a newspaper’s editorial or website page) and respond with their Worm dial to the question: “What would you like to read more of, or spend more time with?”

The level of interest for the different pages within a newspaper and an Internet site differ. Some pages rate well, some do not.
Figure 1 shows screen-shots of how males and females responded to the editorial content at The Australian newspaper’s website (www.theaustralian.news.com.au).

Figure 2 shows screen-shots of how males and females responded to the editorial content at The Age newspaper’s website (www.theage.com.au).

The highest rating sections for both newspaper websites were the “breaking news” section and their homepages with national and world news headlines. Subscription offers at both websites were the lowest rated sections.

The highest rating sections of The Australian “hard copy” newspaper were the Front Page, Page 3, Opinion and The Weekend Australian Magazine. The highest rating sections of The Age “hard copy” newspaper were the Front Page, Letters & Opinion and Culture.

Some sections rated well in one medium and not in the other. The Letters and Opinion sections at the websites did not rate as highly as the “news” sections, although they were among the highest rated sections of the “hard copy” newspapers. This suggests there may be differences in the content people seek in each medium. Yet given the huge role of “email”, “instant messaging”, and SMS, the problem may be one of presentation and style rather than content. An interactive “letters” section would be well worth putting to a “Worm” test.

9 The Weekend Australian Magazine is a newspaper magazine inserted in The Weekend Australian published each Saturday.
The preliminary research findings presented here are not designed to be prescriptive in any way of what does and/or does not work in a web-site or a newspaper. Rather they are presented to introduce the process (and it will necessarily be an iterative one) by which publishers and advertisers can understand the consumers’ response to this new multi-faceted offering – and potentially unlock the business formula for the Internet.

In summary then, to come back to the original question – is a transition afoot from “looking into” to “logging onto”?

1. Essentially it appears that the Internet has added to the repertoire of media that people use or consume, i.e. they don’t “stop” using television, newspapers, or magazines altogether. The issue is more likely one of degree.

2. Among regular Internet users in all four countries, a significant number report using other media “less often” since using the Internet (between 10% and 21% depending on the media). The self-assessments were backed up by analysis of hours spent with each media and time-series trends in Australia.

3. The Internet appears to have had the greatest impact on other media in the United States where the Internet is at a later stage of maturity.

4. In the United States, the high Internet penetration (76%) is associated with high usage for general information and relatively high reading of newspapers and magazines on the Internet – both a substitute or alternative to “hard copy” reading.

5. Newspaper readership on the Internet is greater in the United States than Australia. Major titles such as The Financial Times, New York Times, Investor’s Business Daily, and Washington Post all have sizeable readership at their Internet sites.

Finally, if the Internet facilitates consumer choice, then “the Worm” gives publishers and advertisers a means of understanding the choices the consumers will make.

Next Steps

As with much good research and analysis, this paper has raised important questions for the authors – especially about the future. As a result, the next analysis which will be done will be a series of “cohort” analysis – young people’s media changes over the last ten years, and the “early adopters” as a cohort over the last ten years. There is also an important “social” dimension of “trust and believability” of information from various sources which has not yet been explored adequately in relation to its impact on future media trends.

References


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10 In the United States edition