

“Have-nets” and “Have-nots” - What Determines Internet Access in New Zealand?

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LITERATURE REVIEW

Internet access and social issues: Various commentators overseas have speculated that access to the Internet is a dynamic force for social good, improving communication, education, employment, medical care, and political participation. This has come about due largely to the opportunities the Internet and other technologies seemingly represent to empower individuals. In addition there is an increasing amount of information becoming available only on the Internet. Consequently, issues of access to Information Technology and the Internet are becoming of increasing concern to policy-makers both in NZ and overseas, where terms such as “digital divide” and “information haves and have-nots” are appearing regularly in various media. At a recent Unesco conference it was stated that “Unesco could use its mandate of promoting access to information ...to define a universal right of access to the Internet with which member states would have to comply”(Pullar-Strecker, 1998).

The US Commerce Department’s report titled “Falling through the Net II”, (1998) states that “now that a considerable portion of today’s business, communication, and research takes place on the Internet, access to computers and networks may be as important as access to traditional telephone services”. As a result the US government has made it a fundamental goal to “connect all Americans to the information infrastructure”.

This view is largely supported in New Zealand. The Butler report (1996) “Impact 2001 How IT will change NZ”, states that “equitable access to IT developments across all parts of society is a real concern”. It goes on to state that “policy initiatives will be necessary to ensure that there is the best possible application of and access to IT within society, so that it does not contribute to divisiveness”. President Clinton’s “Agenda for Action for the Information Super-highway” was quoted in the Butler (1996) report as follows: “economically disadvantaged, rural and high cost subscribers in the USA, and their counterparts worldwide, could find themselves on the outside looking in at the coming 21st century information cornucopia”

However, despite these concerns, very little is known outside the USA about the level of access to the Internet and what if any, relationship there is between lack of access and social factors.

Studies regarding the importance of Internet access: There is a lot of anecdotal evidence supporting the significance of Internet access to individuals but relatively little research. One unique study by Bier (1996) describes the personal transformations experienced by participants during a study of home Internet use by low-income families. The study was designed to collect data related to the barriers, benefits, and perceived worth of the Internet to low-income families. Results of this study indicate that home Internet access enabled the research participants to



experience powerful emotional and psychological transformations. One of the limitations of this study was the narrow sample of only six families drawn from one school. Also these families received significantly more help than would normally be the case as an "ideal" home Internet set-up was established. However this study did demonstrate for the first time having "ideal" Internet access can be an effective mechanism to empower disadvantaged families.

1. N.Z. STATISTICS

A search of all the Polytechnic electronic resources, N.Z. Department Of Statistics, and other organisations such as the Ministry of Commerce has revealed a surprising lack of research in this area. Even data available on the number of users is of questionable value because of the methods used to collect this information.. In fact the Ministry of Commerce's (Templeton, March 98) own data was derived from Network Wizards (who only count domain names)stating that "figures relating to Internet users and usage should be treated with caution" and that "home or small business computers...are therefore not counted". Only ACNielsen,MCNair in N.Z. has collected significant amounts of data but this has not been analysed or collated thoroughly.

2. OVERSEAS STATISTICS

One of the few and certainly most detailed study has been carried out in the US Commerce Department(1998). This report titled "Falling through the Net" found that there is a "digital divide" between groups on the basis of income levels, demographic groups and geographic areas. Stating "there are still significant pockets of have-nots among the low-income, minorities, and the young" and found that there is a widening disparity in penetration levels among these groups from 1994 to 1997.The most significant findings were: 18.6 % of all households have online (Internet) access. That Households earning more than \$US 75,000 had an online access rate of 50.3%, against a 2.3 % rate for households earning less than \$US10,000. Other groups that suffered from low online access rates were those without high school education (1.8 %), the elderly, female-headed households(6.4%), rural poor (2.3%) and ethnic minorities.

An American study by Moss (1998) found a strong negative correlation with income and Internet access. Moss stated that higher concentrations of the poor (those earning less than \$US20,000) were strongly correlated with

lower densities of those with Internet access. There is also some concern, particularly in the US of the relationship between race and Internet access. Hoffman and Novak (1998) found that overall white people were "significantly more likely than African Americans to have a computer in their household".

3. ONLINE STUDIES

There are many Internet based survey tools that attempt to establish a picture of typical Internet users by such factors as gender and age, one example being Pitkow and Kehoe (1994-1998). There are significant limitations with these methods. The main one is that the sample is usually self-selected and non-random. The same respondents may also complete the questionnaire frequently, especially as prizes are often offered to participants. Even so, most of these studies support conventional research mentioned above. One online study (<http://www-personal.umich.edu>) found the average income for Internet users was well above the national average in the US, Canada, and Europe, and that over 70 % of users were male. So despite the imperfect nature of data collection these studies are still a valuable, if limited addition, to this field of research.

4. LIBRARY ACCESS

It is often suggested that public libraries are the most efficient way of providing Internet access to the community. A study by Chalmers (1998) when surveying public libraries found 96% agreed with the statement that "it is important for all New Zealanders to be information literate", and 100% agreement that "it is important for the public to have equitable access to electronic information through the WWW". It also stated that "there were very high levels of agreement about the importance of information literacy, network literacy and the role of public libraries by the study respondents". They also found that less than one third of the 273 public libraries provided some form of public WWW access. While almost all libraries listed significant barriers existed to improving this situation including "financial resources", and "staff training". Though this study received a 100% response the questionnaire was filled out by one person on behalf of other librarians (district librarians) and had a tendency to ask leading questions.

5. THIS STUDY

This study attempts to identify what proportion of people in New Zealand society have Internet access, points of Internet access, and what role socio-economic factors play in Internet access.

6. THE DATA

Data was sourced from an ACNielsen door-to-door household survey of more than 3,000 people located throughout New Zealand for the period 6/98 to 12/98. The selection procedure in all areas used Statistics New Zealand Area Unit data and covered both urban and rural areas throughout the country.

7. PRELIMINARY FINDINGS

Of those in the survey approximately 34% had used the Internet before. It was found that Internet access was to a certain extent a function of age, income and socio-economic status. What follows is a brief analysis of those factors considered likely to affect Internet access.

Gender: The survey found little discrepancy between the sexes with 36% of males and 31% of females having used the Internet.

Age: As can be observed from Table 1 below the level of Internet access is reduced through the age scale with as little as 4% of those over 65 having accessed the Internet as opposed to 57% for 15-17 year olds.

Age group	%
10-12 years	40%
13-14 years	57%
15-17 years	57%
18-19 years	51%
20-24 years	48%
25-29 years	40%
30-34 years	35%
35-39 years	34%
40-44 years	38%
45-49 years	35%
50-54 years	34%
55-59 years	25%
60-64 years	14%
65+ years	4%

Table 1

Household Income: It appears that there is a strong relationship between income and Internet access. Of those earning under \$20,000 only 13% had used the Internet as compared to an average of over 50% of those earning above \$60,000 to a high of 67% of those earning over \$120,000.

Amount Earned	%
Less than \$20,00	13%
\$20,000 - \$29,999	21%
\$30,000 - \$39,999	26%
\$40,000 - \$59,999	37%
\$60,000 - \$79,999	40%
\$80,000 - \$99,999	56%
\$100,000 - \$119,999	43%
More than \$120,000	67%

Table 2

Employment status: Of the survey 52% were in paid employment. The survey found 39% of those in paid employment had used the Internet as opposed to 28% of those not in paid employment. Not surprisingly, 88% of the employed group had used the Internet at work against only 8% of the latter group. This suggests the importance of the workplace in initial Internet access.

Ethnicity: The main variation in Internet access amongst ethnic groups was the Pacific Island population being much lower than all other groups.

Ethnicity	Number	%
Don't Know	509	45%
European	2430	34%
Maori	323	32%
Pacific Islander	150	11%
Chinese	57	42%

Table 3

Socio-economic: The socio-economic groupings in Table 4 over the page are adapted from Elley and Irving. The six levels, for the purposes of this report can be described as:

- Level 1 - 'Top professional'
- Level 2 - 'Managerial/executive'
- Level 3 - 'Clerical'
- Level 4 - 'Skilled/technical'
- Level 5 - 'Semi-skilled'
- Level 6 - 'Unskilled workers'

This supports previous data that demonstrates a relationship between lower socio-economic status and Internet access.

Socio Economic	Number	%
Level One High	244	63%
Level Two	471	49%
Level Three	533	34%
Level Four	856	28%
Level Five	364	20%
Level Six Low	193	16%
Other	377	29%
Refused /Not Specified	9	22%

Table 4

7. SUMMARY OF FINDINGS

From preliminary study it appears there is a relationship between factors such as age, income and socio-economic status with Internet access. However, further statistical study is required to support the findings of this preliminary research.

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