Study 3: Public Interest in the Information Superhighway

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Overview

Every newspaper you read, every magazine and many television shows talk about the coming of the "Information Superhighway." All of the big telecommunication companies, video companies, computer companies and telephone companies are scrambling to create alliances that will allow them to move ahead in the race to bring the Information Superhighway into everyone's home. These companies are literally sinking billions of dollars into putting in the special fiber optic cables that will allow for two-way transmission into our set-top box. Everyone is touting movies on-demand, home banking, home shopping, information retrieval and more from the comfort of your couch.

The one problem is that they have left out the consumer. They have never asked the consumer: Do you want this? Well, in the past year several research groups have done just that. Lou Harris and Associates performed a nationwide survey asking those questions. MCI did to as did Bell-Atlantic and MacWorld magazine. The results were staggering. VERY FEW AMERICANS EVEN KNOW WHAT THE INFORMATION SUPERHIGHWAY IS and OF THOSE WHO DO, VERY FEW ARE INTERESTED. WHY?

The following longitudinal study focused on precisely these questions:

How much are Americans aware of the Information Superhighway?

Which specific services most interest them and how much are they willing to pay?

Who is more interested in terms of gender, age, family income, and education ?

What is the role of psychological reactions to technology in determining interest?

How much are these attitudes changing over time?

The Study

This study queried 1,215 American adults in Metropolitan Los Angeles three times over a six-month period from the end of 1994 through the Spring of 1995. Each subject completed a comprehensive survey designed to assess awareness of the Information Superhighway, interest in Information Superhighway services, willingness to pay for Information Superhighway service, demographic data and psychological reactions to technology.

TABLE 1: SAMPLE DEMOGRAPHICS.

The entire sample was compared to the the latest (1990) census figures to determine how well it matched the general population. Overall, the sample in this study was slightly younger and

slightly more educated than expected from the U.S. census. The sample also presented a much more ethnically diverse mixture (the U.S. census shows that the population is 76% white). An interesting finding was that the study sample showed a substantially higher home computer ownership (51% compared to under 35% of the US population) and more computer training (40% claimed to have more than 10 hours of computer training!).

Sample Demographics (N = 1,215)	
Gender Breakdown	**Sample Percentages**
Male	51%
Female	49%
Age Breakdown	
18-25	30%
26-35	32%
36-50	26%
51-64	10%
65 or older	2%
Ethnic Breakdown	
Asian	15%
Black	22%
Hispanic	19%
White	45%
Education Level	
No High School Degree	4%
High School Degree	17%
Some College	39%
4 Year College Degree	31%
Post-Graduate Work	10%
Family Income	
under $10,000	11%
$10,000 - $25,000	25%
$25,000 - $40,000	26%
$40,000 - $65,000	22%

over $65,000	16%		
Home Computer			
Own Home Computer	51%		
Not Own Home Computer	49%		
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TABLE 2: ATTITUDES AND BEHAVIORS TOWARD TECHNOLOGY

Research by our lab (see our recent book chapter in the list of references included in this web site) and others (MCI, consumer research) has shown that people react to technology in a characteristic fashion. Some are Eager Adopters who embrace technology as soon as it is released. The Eager Adopters enjoy technology, expect it to have problems and find solving the problems stimulating and fun. About 10%-15% of the population are Eager Adopters (MCI's 1994 study of business executives found 12%). Hesitant "Prove Its" form the largest group (50%-60% in general; 59% in MCI's study). Hesitant "Prove Its" are not anti-technology, nor are they usually technophobic (although they may be). Rather, they are waiting on the sidelines for someone to show them how technology can help them. They want to know how technology will specifically make their life easier. Hesitant "Prove Its" know that technology has problems and they do not necessarily enjoy dealing with those problems. They would rather wait on the sidelines until there are no problems.

Resisters still make up 30%-40% of the population (29% in MCI's study). Resisters avoid technology. They do not like it, want it or find it enjoyable. They know that technology has problems and take technological snafus as reflecting a personal shortcoming. Although many Resisters are technophobic, some are not.

The table below shows that this sample matched the previous research fairly closely with 18% seen as Eager Adopters and 34% as Resisters. The right side of the table shows that 37% of the sample rated themselves as moderately to highly technophobic and another 23% rated themselves as mildly technophobic. These figures actually show a slightly elevated level of self-rated technophobia compared with previous work by our lab and others.

REACTIONS TO TECHNOLOGY		LEVEL OF TECHNOPHOBIA	
Eager Adopters	18%	Not Technophobic	40%
Hesitant "Prove Its"	48%	Mildly Technophobic	23%
Resisters	34%	Moderately to Highly Technophobic	37%
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TABLE 3: KNOWLEDGE OF THE INFORMATION SUPERHIGHWAY

This table shows that one-fourth of the population has heard only a little about the Information Superhighway and another one-fourth has heard nothing. (A recent Harris poll found similar figures -- only 48% of their sample had heard anything at all and only one-fourth claimed to have

a reasonable understanding of what the Information Superhighway actually meant.) Those who had heard about the Information Superhighway appeared to gain most of their knowledge through the television.

"How much have you heard about the Information Superhighway?"		Where did you learn the most about the Information Superhighway?	
Quite a bit	27%	Television	42%
A little	47%	Magazines	16%
Nothing	26%	Newspapers	15%
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TABLE 4: INTEREST IN THE INFORMATION SUPERHIGHWAY

This table shows that only slightly more than half the sample claimed to be "Very Interested" in five services, two financial (paying bills and banking), two entertainment oriented (video on-demand and television on-demand) and the other the ability to telecommute. These figures compared favorably to a survey done by MacWorld magazine in Fall 1994.) When asked how much they would be willing to pay for these services, only 28% stated they would be willing to pay $30 or more per month for all services. Another 29% were willing to pay $21 to $30 per month.

FUTURE INFORMATION SUPERHIGHWAY SERVICE	PERCENTAGE OF SAMPLE WHO WERE "VERY INTERESTED"
Pay your bills from your home television	59%
Ability to work from home	57%
Video movies on demand	54%
Ability to watch television shows at any time	53%
Banking through your home television	52%
Search an encyclopedia through your home TV	49%
Pay your income taxes through your home TV	44%
Send electronic mail from home	43%
View college classes on television	42%
Read library books on your home television	38%
View your medical records on your home TV	37%
Shop from home through your television	33%
Play games on your home television	32%

Read a newspaper on your home television	30%
Read magazines on your home television	29%
Join discussion groups with other people	29%

TABLE 5: PREDICTORS OF INTEREST IN THE INFORMATION SUPERHIGHWAY

Using a series of Stepwise Multiple Regression equations, an optimal set of variables was extracted to predict who would be interested in services on the Information Superhighway. Services were combined all together as well as into groupings of Entertainment Services, Financial Services, Educational Services and Other Services (electronic mail, discussion groups, medical records access and telecommuting). Results clearly indicate that the best predictor for all but entertainment services was a composite measure of Technophobia or psychological reactions to technology. In terms of relative weight (beta weights shown in the figure), Technophobia was at least twice as important as any other variable in predicting usage of all services combined and financial, educational and other services separately. Age was the second best predictor in all these cases.

PREDICTORS OF INTEREST IN THE INFORMATION SUPERHIGHWAY					
Multiple Regression Steps	All Services Combined	Entertainment Services	Financial Services	Educational Services	Other Services
Step 1	Technophobia (.31)	Age (.19)	Technophobia (.22)	Technophobia (.29)	Technophobia (.33)
Step 2	Age (.16)	Technophobia (.15)	Age (.11)	Age (.10)	Age (.08)
Step 3	Asian (.13)	Asian (.14)	Hispanic (.11)	Education (.08)	Education (.08)
Step 4	Black (.13)	Black (.14)	Education (.04)	Black (.10)	Own a PC (.07)
Step 5	Hispanic (.10)			Asian (.09)	Black (.09)
Step 6	Education (.06)				
Step 7	Own a PC (.06)				

LONGITUDINAL TRENDS

When the three samples, collected over a six-month period, were examined for trends over time, very little change was observed. There was no increase in how much was known about the Information Superhighway, and interest in most specific services stayed constant. The amount that people were willing to pay also remained constant over time.

CONCLUSIONS

These results suggest that the American public is not ready to eagerly embrace the coming Information Superhighway until their general discomfort with technology is reduced or eliminated. Other work from our lab suggests that having a calm, relaxed, jargon-free person introduce new technology by providing a personal motivation is critical to future comfort and acceptance.

END NOTES:

We look forward to your comments on this study. Please e-mail Larry Rosen at lrosen@csudh.edu.

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