

The Passive Audience for Interactive Technology

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Interactive television technology is often touted as the “killer application” that will drive the diffusion of advanced telecommunications networks, including switched broadband networks. One problem faced by those who are trying to develop interactive technologies is that few of these technologies have actually found a niche in the market.

One successful interactive technology is television shopping, which has grown in just 10 years to become a three billion dollar industry.¹ Television shopping is different from many proposed interactive technologies in its use of the existing cable television and telephone networks to provide a fully-interactive experience, through which a viewer can order products seen on television and even become part of the program through conversations with the hosts.

Research on the behavior of television shopping viewers provides a few important lessons that can be applied to almost any emerging interactive technology. The purpose of this article is to explore the implications of one specific observation: About half of the people who watch television shopping programs on a regular basis have never made a single purchase. After briefly exploring research on television shopping viewers, we will offer a series of suggestions that may be applied to other interactive technologies.

Television Shopping Research

While most published research on television shopping is similar to research on other interactive communication systems in that the subjects of the research are the people who actively interact with the medium—in this case, making purchases from television shopping networks—we had the opportunity to start with a sample of the general public rather than with users of the medium. This sample was developed for a survey research project regarding the acceptability of television shopping, home banking, and home video as substitutes for driving.²

We asked separate questions about watching and buying from television shopping services. All respondents reporting they had made at least one purchase from a television shopping channel were classified as “buyers.” Those reporting they watched television shopping programs at least once a month and indicated they had never made a television shopping purchase were classified as “watchers.” All others were classified as “non-viewers.”

Most of 465 respondents, 77%, indicated that they never watched or bought from television shopping programs. Eleven percent were classified as “buyers,” consistent with previous research. Surprisingly, there were more “watchers” than “buyers,” with 12% of the respondents classified as “watchers.”

Next, we attempted to identify differences between the “watchers” and the “buyers.” We expected

that catalog shopping behavior and ownership of other communication technologies such as fax machines, computers, and computer modems would be related to shopping behaviors. As expected, "buyers" were more likely to shop from catalogs than "watchers" and "non-viewers." More than four-fifths of all "buyers" (82.7%) made one or more catalog purchases in the past year, compared with 63.2% of "watchers" and 63.3% of "non-viewers."

Ownership of interactive communication technology also proved to be an important discriminating variable. "Buyers" owned about the same number of interactive communication technologies as "non-viewers" (2.0 vs. 1.9), but "watchers," on average, owned significantly fewer of these technologies (1.1).

Important differences in demographic variables were also observed. Watchers were significantly different from buyers and non-viewers on all demographic variables: age, education, income, and gender. On average, "watchers" were younger, with less education and income than "non-viewers" and "buyers." "Watchers" and "non-viewers" were disproportionately male, and "buyers" were disproportionately female.

We also expected that the attitudes of "watchers" toward technology would be different from the other two groups, but no significant difference was found. Indeed, the attitude measure that was different across the three groups was the attitude toward driving. "Watchers" reported a much higher than average score on the driving factor indicating that they liked to drive and were not bothered by traffic. "Buyers," on the other hand, scored below average on this dimension, and "non-viewers" were at the mean.

At this stage, it is important to note that other interactive technologies have their "watchers." On-line chat rooms have individuals who observe the chatting without actually participating in the conversations. Internet and on-line newsgroups have browsers or "lurkers" who read the postings, yet never post anything themselves nor respond to any of the postings. In recent years, television news broadcasts and prime-time news magazines have featured call-in opinion polls where the viewer can interact by calling to "voice their opinion," but most viewers just watch without calling. What role, then, will the passive consumers play for new, interactive media?

Implications for Other Interactive Technologies

The most important implication of this research is that the market for virtually any interactive technology may include a significant number of passive users of the technology. It is therefore important for people designing interactive media to consider possible passive uses of the technology. These passive users can be divided into two categories: those who are just becoming familiar with the technology and are expected to eventually become interactive users of the technology, and those whose use of the system will remain passive.

The amount of time it takes for the innovation to diffuse through society also must be considered when studying a new technology. In addition to the time it takes to develop a distribution and marketing system, individual users must become familiar with the technology over time, finding a way to work it into their daily routine or repertoire of communication technologies. The addition of a passive component allows for a transitional adoption stage for potential adopters in which they can observe the technology with a minimal commitment of mental and/or monetary resources. It also allows for an expansion of the market for the technology to a group of consumers who may not wish an interactive experience, but who may wish to watch others interacting.

In either case, designers of interactive media systems should include a means for passive consumption of interactive experiences. For example, an interactive game system that allowed two or more players at different locations to compete against each other could be designed so that others could watch the competition. In turn, this feature could increase use of the game, as the watchers could be given the opportunity to challenge the winners—or the losers. This feature would also make it easier for non-users of the technology to observe the game in action, increasing their likelihood of becoming a user.

Even a system as narrowly targeted at an individual as an interactive catalog could be designed so that users could observe the search patterns of others. By adding the ability for two people to communicate on-line as they shop, the on-line shopping experience would more closely resemble traditional shopping, including a social and recreational component along with the instrumental goal of buying a specific product. (Our expectation is that such a technology would

lead to longer “shopping trips” and, in the end, more purchases.)

This idea that interactive technologies should include a social dimension is supported by previous research on people who buy products from television shopping networks. Anecdotal stories tell of television shopping “clubs” and other viewing groups for people to watch these programs together. A 1991 analysis of the behavior of television shopping buyers indicated that the para-social relationship viewers developed with hosts was one of the strongest predictors of the number of hours of television shopping programming viewed, which in turn, was the strongest predictor of the number of purchases.³

The analysis of television shopping buyers also indicated that income was an important (but not the most important) predictor of the number of purchases made. Because most interactive communication technologies will be designed to make a profit, some means must also be found to support any passive component of an interactive system. The most obvious means is to consider that passive consumption may lead to interactive consumption of the service, considering any additional cost for the passive component as a marketing expense. However, we expect that a large number of users will be content to watch others interact, suggesting a market for advertising support. (On the other hand, we doubt that consumers will pay a subscription fee or other direct cost for passive consumption of most interactive systems.)

Since a great deal of research forecasting the prospects for new technologies uses measures of attitudes toward the new technologies or to technology in general to predict likely adoption (or, in some cases, as a proxy for adoption!), it is useful to consider our findings regarding differences in attitude among “watchers,” “buyers,” and “non-viewers.” Because the groups had no difference in attitudes toward technology, we initially expected no significant difference in ownership of interactive communication technology. The results of the analysis, however, show that “watchers” are less likely to own interactive communication technologies than either the “buyers” or the “non-viewers.” (There was no difference between the “buyers” and the “non-viewers.”)

This finding may be explained in part by the demographic analysis. “Watchers” were younger and had lower incomes and education than the other groups, suggesting that the barrier to interacting with the program by purchasing a product might be economic. “Watchers” appear to have fewer economic

resources to devote to purchasing the goods offered for sale, but they nonetheless watch the shopping programs.

“Watchers” may be watching in order to meet intrapersonal and interpersonal goals. That is, they may not be “buyers” because they simply do not have the money to purchase items, but because the experience of watching the shopping and hearing other shoppers interact with the sales “host” fulfills their need to shop. Thus, they become gratified through the experience of others. TV shopping, in this case, may serve a functional use for the “watcher.” The “watchers” can virtually “window shop” in the comfort of their own home and can fulfill their need to interact by watching the interaction of others, the “buyers.”

The addition of a passive component to interactive games, multimedia, etc. may serve to help users fulfill other similar goals. For example, people who are mobility impaired could passively consume interactive technology to fulfill their needs for social connection. In this respect, passive consumption of interactive technology becomes the high-tech equivalent of watching game shows, talk shows, or sports on broadcast television.

The lack of significant differences in attitudes toward technology in our research suggests some reconceptualization of the role of attitudes in the diffusion process. In the context of diffusion theory, it would be expected that the “buyers” would have more favorable attitudes toward technology than the “watchers” because they use interactive communication technology (TV shopping). This lack of difference is significant.

One explanation is the idea that television shopping is a mature technology that has fully diffused to the universe of likely adopters. In exploring the diffusion of innovations including communication technology, Everett Rogers indicates significant attitudinal differences between the earliest adopters of a technology and the last adopters.⁴ Thus, significant differences should be observed between users and non-users of a technology in the early stages of diffusion, but any such differences would not be observed if the innovation has diffused to its limit.

On the other hand, the result points to problems in the way new interactive technologies are often studied. It may be that examining the uses of interactive technologies by innovators is not a function of attitudes toward the technology but rather something

else. The fact that both catalog shopping behavior and ownership of interactive technology were significantly related to whether a person was a “watcher” or a “buyer” suggests that future research projects attempting to predict the success of interactive communication technologies should give more emphasis to the current behavior of prospective adopters than to attitudes about new technology. When faced with a description of the wonders of a new technology, respondents may overestimate the likelihood that they will adopt the technology. Given the limited time and economic resources most people have, analysis of how they currently spend their time and money should be a better predictor of adoption than attitudes toward a specific technology or technology in general.

The only major difference in attitudes between “watchers” and “buyers” was that “watchers” like to drive and “buyers” do not. Thus, in the case of TV shopping, the use of the interactive technology may be instrumental, not a function of attitudes towards technology. The “buyers” use TV shopping as a means of avoiding driving and the related inconveniences (traffic, time, etc.). This finding underscores the importance of the functional approach to studying television shopping and other interactive technology. Thus, when predicting whether people are going to use a new interactive technology, the instrumental value of the technology to the user perhaps should be considered over their attitudes towards the technology.

In the case of TV shopping, the “watchers” provide some interesting insights into interactive technologies. A functional approach to the study of these technologies should be considered. The relationship between attitudes toward technology and use of technology is not there in this case. The difference, in this case, can be explained through the instrumental value of the service. “Watchers” have less money and may be more likely to use TV shopping to fulfill needs to consume, if only through other people. “Buyers,” on the other hand, do not enjoy driving out to purchase items and prefer to do so without leaving their homes. Buyers, as would be expected, are also catalog shoppers, although not all catalog shoppers are TV shoppers.

The big question is the degree to which the lessons from television shopping can be applied to other interactive technologies. Indeed, by some definitions, television shopping would not be considered an interactive technology because the user’s interaction with the program does not result in a unique content delivery sequence for each user. We

agree that inferences drawn from television shopping can only go so far in explaining more sophisticated interactive communication technologies, but we believe that virtually every interactive medium has the potential for a passive as well as an active audience. At the very least, research and development of these technologies should consider the *possibility* of passive uses and users of the technology.

Conclusions

Our primary thesis is that users of interactive technologies may come in two distinct groups: those who use the technology interactively and those who engage in passive consumption of the interactive technology. When designing or studying new interactive technologies or looking for the fabled “killer application,” then, designers and researchers should consider not only the adopters, or the people who will use the technology as it was designed, but also the people who use interactive technologies passively, or not interactively. *You can give people interactivity, but you can’t make them use it.*

In the process, consideration should be given to the instrumental value of the technology. Certainly, the attitudes of the adopters should be examined, but the reasons they use the technology and the function it serves in their lives may give more information in how to bring interactivity to more people than explaining use as a function of attitudes.

Further research is needed to specifically address the underlying social, psychological, cultural, and economic reasons underlying passive consumption of interactive technology. Fortunately, the promised explosion in the number of interactive forms of television should give researchers plenty of opportunity to conduct this research and further explore the phenomenon of the “watchers.” NTQ

¹ For more information on television shopping, see S. A. Skumanich, “Television Shopping,” in A. E. Grant, (Ed.) *Communication Technology Update, 4th Edition* (Newton, MA: Focal Press, 1995).

² For more information on this study, contact Susan Handy, Community and Regional Planning Program, School of Architecture, University of Texas at Austin, Austin, TX 78712-1160. handy@mail.utexas.edu.

³ See A. E. Grant, K. K. Guthrie, and S. J. Ball-Rokeach, “Television Shopping: A Media System Dependency Perspective,” *Communication Research*, Vol. 18, No. 6 (1991), pp. 773-798.

⁴ E. M. Rogers, *The Diffusion of Innovations*, 4th Ed. (New York: Free Press).