Addiction to Technologies: A Social Psychological Perspective of Internet Addiction

STEVEN E. STERN

ABSTRACT

In recent years, there has been a large amount of scientific and media attention toward what some clinicians have termed "Internet addiction." This article asserts that habitual use or misuse of technological innovations is not a new phenomenon. "Internet addiction" is examined in light of research and theory on how people interact with technologies. The literature reveals that we have been concerned with the habitual use of a variety of new technologies developed during the twentieth century. Internet addiction is discussed in the context of issues such as the compulsive use of technologies such as television and video games. It is suggested that Internet addiction may not be a parsimonious explanation for the overuse of the Internet. An alternative explanation of the role that technologies play in the formation of maladaptive behavior is presented. In conclusion, it is explained that while technology may expand our capabilities (e.g., increases social contacts), it may also expand our capacity to express maladaptive behaviors and psychopathologies.

INTRODUCTION

Technology is frequently defined as the means by which we increase our natural abilities.\(^1^2^3\) The Internet is a technology that enhances our ability to interact with distant people in many different ways. Since the development of the Internet, it has become possible to do countless things that we were not able to previously. Hence, the Internet clearly fits a definition of technology endorsed over the decades by social scientists who study the impacts of technology.

Social psychologists are interested in how people interact with and relate to one another. Technological advancement interests social psychologists in as much as technological change leads to changes in social interaction. For example, modern technology alters how we communicate. By making communication possible across distances, technologies ranging from telephones to television to E-mail physically isolate people from one another.\(^4\) Modern technology makes it possible to entertain more people with more realistic media. In turn, by bringing increasingly violent imagery to us, mass media has contributed to aggressive behavior.\(^5\)

The Internet is of particular interest to social psychologists as it drastically alters the ways that we communicate and interact. Social psychologists have traditionally been interested in the technologies we use to communicate. As early as the 1930s, for instance, Gordon Allport had expressed concern regarding how people used radio.\(^6\) More recently, social psychologists have become concerned with the differences between computer-mediated communication and face-to-face communication.\(^7\)
Social psychologists are not alone in their concern regarding adverse psychological effects of Internet technology. A group of clinically oriented psychologists\(^8,9\) have identified Internet addiction as a distinct psychological disorder that should be encompassed within the *Diagnostic and Statistical Manual of the American Psychiatric Association*. In this article, I will discuss how various technologies have altered social relations between normal people. Although social psychology has traditionally focused on this area, I have also examined data from other appropriate fields that examine human interaction including sociology, anthropology, and communications. In examining how social psychology and other fields have handled problems regarding technological innovation, I hope to shed light on how clinical psychologists might formulate and address real problems associated with the compulsive use of the Internet.

The argument will be made that as technology evolves, concerns regarding technology will evolve. Because our concerns regarding technologies shift so frequently, I will suggest that Internet Addiction may not be a parsimonious explanation for the compulsive overuse of the Internet that is of concern to clinicians. I intend to focus on three main issues of importance: (1) the ever changing nature of our concerns regarding new technologies, (2) the repeated concern of psychologists regarding new technologies, and (3) the subsequent non-parsimonious nature of Internet addiction as an explanation of the compulsive use of the Internet. I will suggest a more parsimonious model with which to consider the compulsive use of all technologies including the Internet.

**TECHNOLOGY IS CONSTANTLY EVOLVING**

Technologies are developed by people for specific purposes. Because our needs, desires, and expectations are constantly changing, it is not surprising that technologies continue to progress. There is strong evidence that science and technology are evolving at faster and faster paces than ever before.\(^10,11\)

As media technology has evolved, the concerns of the public, governments, scientists, and parents have evolved as well. Sometimes this evolution has taken the form of shifting concern onto the newest innovation. Movies in the 1920s, radio in the 1930s, and television in the 1940s and 1950s were all criticized for absorbing children’s time and negatively affecting their behavior.\(^12\)

However, the technology need not actually evolve. Sometimes, problems arise due to the social context. Kiesler and Finholt,\(^13\) for instance, have suggested that the social context into which a technology is introduced can affect the nature of the problems associated with the technology. They found that Repetitive Stress Injuries (RSI) were much more common in Australia than they were in the United States, even though computer use was similar between the two countries. In their analysis of this situation, they suggested that this higher incidence of computer related physical injury is a function, in part, of the more sudden introduction of this often aggravating and alienating technology in Australia compared to the United States. Hence, the degree to which technology causes problems is related to the situation into which it is introduced.

**CONCERN OVER TECHNOLOGIES IN THE LAST 50 YEARS**

Over the years, scientists in the fields of psychology, sociology, communications, anthropology, and other fields have addressed problems associated with new technologies. I will focus primarily on concerns related to television and video games.

**Television**

As early as the 1940s, writers expressed concern over the social effects of television.\(^14\) Television was viewed as overly engaging and absorbing.\(^15\) That is, a person watching television was believed unable to do anything else while watching. Librarians feared for their jobs over predictions that television would outdate newspapers and magazines.\(^16\) and many were concerned that children were spending more time
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watching television than attending school. There was also concern regarding the large-scale societal exposure to indecency, profanity, and obscenity that resulted from the growing medium.

Of primary concern to both scientists and parents is the established relationship between television watching and aggression. Both classic and contemporary studies have demonstrated links between watching aggressive television and subsequent aggressive behavior.

Television has also been criticized for disrupting norms through the information that it presents. Anthropological data suggests that when television is introduced into communities where it was previously unavailable, traditional lifestyles are challenged and local culture is displaced by United States culture.

Concern regarding the amount of television people watch is also evident in the literature. Researchers have shown concern over the use of television in place of contact with other people. There is even some concern that when adults watch too much television, they may become too engrossed for too long to take care of their children.

Furthermore, there is a body of evidence suggesting that some television watchers are at risk of becoming dependent upon television. There is, for example, evidence that television is used to combat loneliness. Furthermore, some watchers develop intense "parasocial" relationships; pseudo-relationships with the people that they watch on television. The use of television may not only combat loneliness, but may in turn cause or enhance loneliness.

Video games

Another technology that has alarmed the scientific and lay communities is the video game. As with television, concern over video games has focused on their frequently violent content. Children become more aggressive following video game play. Because video games are sometimes used outside of the house, in arcades for instance, there has been some examination into the benefits and problems associated with arcade subculture. There is special concern regarding video games because of the level of physiological arousal they can bring about. There are cases in which this level of arousal has resulted in epileptic seizure.

As with other technologies, the concern that video games are overused has also been raised. There is evidence that video game playing does lead to social isolation as well as anti-social behavior. With the availability of home systems over arcade games, the isolation is furthered and habitual playing becomes more likely.

As with the Internet, some researchers have focused on the overuse of video games as an addiction. Children and adolescents have been reported to have given up almost all other leisure time pursuits to play, spent their lunch money to play, play to escape from problems, escalate their playing behavior and have required counseling for behavior problems associated with video game use. The people who play the most report feelings of compulsion whereas most players do not.

INTERNET ADDICTION AND PARSIMONY

Scientists, psychologists included, strive for the most parsimonious explanations possible. A parsimonious explanation is one with the fewest possible assumptions. Those who propose a separate and distinct mental disorder called Internet addiction are assuming that the underlying cause of the behavior we are concerned about is Internet addiction.

This is a problematic assumption, as it implies that the problems being described are completely dependent upon the existence of the Internet. Although compulsive behavior has probably existed in a portion of the population for a very long time, we know that the Internet, like television and computer games, has not.

At this juncture, I will compare how Internet addiction theorists model the overuse of the Internet with an alternative model derived from the above synthesis of research on use of technology. As seen in Figure 1, Internet addiction theory makes the assumption that there is such a thing as Internet addiction. This assumption holds that prior to the development of the In-
Internet, or with people to whom the Internet is not available, the disorder is latent. If the Internet is available, the Internet addict will display a form of maladaptive behavior, for instance, using the Internet compulsively for long periods of time.

The model proposed in Figure 2 does not assume that Internet addiction exists, yet accounts for the same maladaptive behavior. This model accounts for the possibility that in the absence of the Internet, maladaptive behavior does still occur in people with underlying problems. For instance, without the benefit of the Internet, compulsive shoppers can still shop and compulsive consumers of pornography can still purchase pornography by mail order or in stores. The Internet, as illustrated in the model, makes maladaptive behavior more probable.

Rather importantly, the alternative model also accounts for the fact that the Internet is used for a large number of different purposes and that one person’s addiction may be very different in nature than another person’s. For instance, one person may be spending an inordinate amount of time conversing with other people in multi-user domains (MUDs), while another person may be compulsively purchasing things and a third might be searching for pornographic pictures. The Internet addiction model, on the other hand, implies (as some Internet addiction theorists do), that the disorder is similar across uses of the Internet and that the treatment would be the similar regardless of the underlying disorder.32

These assertions can be scientifically tested. If the Internet Addiction model (Fig. 1) is a better explanation than the alternate model (Fig. 2), we would predict that compulsive users of the Internet would be compelled to use the Internet for as many purposes as possible. For example, Internet addicts who spent time conversing in chat rooms on the Internet would also be compelled to do as many other activi-
ties (e.g., shopping and visiting sites related to other interests and hobbies) via the Internet as well. If the alternate model is a better explanation, we would expect the user’s activities to be indicative of any disorders or problems that they might already have. For example, we would expect that if a compulsive gambler were to become an Internet addict, that they would focus their attention on gambling related sites.

**CONCLUSION**

I am not suggesting that the Internet does not cause or exacerbate psychological problems and disorders. For instance, clinical data suggests that some Internet users compulsively spend many hours online and that this population may be at particular risk for depression. Research on nonclinical samples that has demonstrated that Internet use may lead to decreased social involvement, depression and loneliness bears this out as well. Undoubtedly, new technologies can lead to both social and clinical problems.

Technologies, by definition, increase our capacities and abilities. In turn, they may also enhance our ability to exhibit maladaptive behavior, fallabilities, and inabilities. Telegraph and telephone made it possible for compulsive gamblers to follow their cravings without having to go to casinos and racetracks. Pornographic videotapes made it possible to satisfy desires that used to require someone to go to the theatre. The Internet makes it possible to satisfy a large variety of desires and compulsions in the privacy of the home.

How does the Internet do this? The Internet may be particularly effective in enhancing our ability to express maladaptive behavior through its ability to break down social boundaries. Computer mediated communication (CMC) can increase communication across hierarchical boundaries in organizations. MUDs make it possible to contact and converse anonymously with strangers.

By shielding our identities, and at least our faces, the Internet may also be enhancing maladaptive behavior by enhancing deindividuation—a state of lowered self-consciousness brought about under conditions of anonymity. In other words, without concern for how other people might react, people can do things over the Internet that they would not do in front of other people or in other situations in which they would be able to be identified.

The Internet, like other media technologies, has the effect of physically isolating people from one another. Another explanation for the Internet’s capacity to promote compulsive behaviors could be rooted in the degree that it separates people from socially healthier contexts in which they could interact more appropriately.

In the search for our explanations of behavior, it is important that we take context into account. An integral part of the environment that we live in are the technologies that surround us and that we interact with on a moment by moment basis. It is crucial that we recognize that the technologies are bound to affect us in many positive and negative ways. Finally, we should take into account that the problems that we may have in our relation to the technologies are not necessarily inherent in us as Internet addiction theory implicitly suggests.

**ACKNOWLEDGMENTS**

I am grateful to Kelly Bittner, Alyssa Miller, and Jeri Penrod for their assistance on this research. I also thank Charles Hinderliter and John Mullennix for their editorial comments on drafts of this article.

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Address reprint requests to:

Steven E. Stern
Department of Psychology
University of Pittsburgh at Johnstown
Johnstown, PA 15904

E-mail: sternen+pitt.edu
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