

Abstract 'information-age.' it is obvious that many parents



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Abstract

In recent years, electronic games, home computers, and the internet have taken up an important place in our lives. This paper gives a review of the research on the impact of home computer use on the development of teens. Time use data is presented along with a brief discussion of factors, which influence the time spent on computers as well as the activities engaged in it. Research on the influence of computer use on cognitive skill and academic development, social development and associations, and perceptions of reality and violent behavior will also be presented. The critical role in the lives of adolescents is brought out using data obtained from various academic sources.

The paper concludes with observations and recommendations for future study in order to better understand the rising impact of computers on teens.

Introduction

The time is now ideal to review the effects of technology use on teen development. Over the past few years, a growing number of U. S. households have added electronic games, home computers, and the Internet to existing technologies-the telephone, radio TV, and the stereo system-that take up much of children's time. Indeed, estimates show that 60% of U. S. households with teen children have home computers and 61% of the households with computers have access to Internet services (Cole 30). Surveys of parents suggest that they acquire home computers and subscribe to Internet access to provide learning opportunities for their children, and to equip them for the ' information-age.' It is obvious that many parents are <https://assignbuster.com/abstract-information-age-it-is-obvious-that-many-parents/>

increasingly concerned about the impact of the Internet on their children and express disappointment over their children using the computer for activities like playing games and surfing the Internet to download lyrics of popular songs and pictures of rock stars. However, parents usually consider time wasted on the computer preferable to time spent before the TV, and even regard children without computers to be at a disadvantage (Cole 31). While the research on whether computers are a positive influence in teen's lives is mostly vague and indefinite, some initial findings are beginning to emerge. Understanding the effect of computer use requires good estimates of both the time children spend on computers and the time taken away from other useful activities. It is estimated that teen's spend approximately two hours a day on computers, including video games (Dworetzky 12).

The same estimates show that among the teens who had access to the Internet at home, usage averaged about 3h/week during weeks when they used it, and over 10% used it more than 16 h/week (Dworetzky 13). This shows that teens are heavier users of the internet and all its services compared to their parents. Many computer applications, mostly computer games, have design features that shift the balance of required information processing, from verbal to visual. The much admired action games, which are spatial, iconic, and energetic, have things going on at various locations.

The suite of proficiency that children acquire by playing such games can equip them with the guidance wheels for computer literacy, and can help prepare them for science and technology, where majority of the activity depends on manipulating images on a screen. Another skill that is brought to life in computer games is what is popularly referred to as iconic or analog

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representation or simply the ability to read images such as pictures and diagrams. Indeed, images are often more important than words in many computer games. In one study conducted in the U. S. (Roberts 50), it was established that playing a computer game shifts representational styles from verbal to iconic. Iconic representation is crucial to scientific and technical thinking and one can therefore confidently say that technology has assisted teens in the area of scientific learning. Another impact of technology on the psychological development of teens is in the area of visual attention.

One skill that is involved in playing computer and video games is divided visual attention, or rather the skill of keeping track of numerous things at the same time. Over the years, there have been studies carried out to gauge the effect of video game expertise on strategies for divided visual attention among teens. In one of these studies (Roberts 51), divided attention was measured by measuring participants' response time to two events of varying probabilities at two locations on a computer screen. In the study, it was established that participants who were expert computer game players had quicker response times than learners. Playing an action game was also found to improve strategies for keeping track of events at multiple locations.

Overall, the study established that more skilled video game players had enhanced attentional skills than less skilled players. From the results of this study, it is therefore adequate to conclude that computer and video games can help in developing the skills for occupations that require expertise in divided visual attention such as instrument flying, military activities and air traffic control (Roberts 52). Communication with peers has an impact on a teen's interpersonal skills, their poise, and social competence.

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By the time children are approaching adolescence, they tend to spend as much time with their peers as they do with adults. Because of the solitary nature of most computer activities, concerns have been raised that children might develop 'electronic friendships' with the machine, instead of relationships with their peers thus hindering the development of interpersonal skills. The fact that one-fifth of teens are believed to have a computer in their bedroom (Roberts 53) indicates that the computer may in most cases be used in isolation. Indeed, Roberts (54) found that, among junior high and high school students, over 60% of all computer time is spent alone. However, some of this time is spent in developing electronic friendships through email and social sites such as Facebook and Twitter. From this analysis, it is therefore clear that computers have aided in fostering interpersonal skills among teens. Research indicates that in families with access to the internet, use of the computer to stay in touch with others (via e-mail, chat rooms, etc.) is an increasingly popular activity, especially among teens.

In a study conducted in 1997, (Griffiths 37) teens said that after completing their homework, use of email and participating in chat rooms was their most frequent activities on the internet. Actually, the study established that teens were more interested in interpersonal communications via electronic mail than information acquisition via the internet. Majority of the keep-in-touch communications described by teens in this study involved small talk-gossip and news of the day, with a here and now flavor. These communications exist for the pleasure they bring other than for their instrumental benefits. In the study, one of the teenage girl who was keeping in touch with a pen pal

she met online, described the small-talk nature of her conversation with him as “ stupid stuff-what’s happening in his life; what’s happening in my life.” In the same study, it was also established that increased communication through e-mailing, chatting in chatrooms, and IM was associated with decreased depression among teens. The study recommended an increase of the use of e-mailing to enhance teens social support and ultimately their mental health (Griffiths 38).

Although most of the psychological effects of technology on teens are positive, it would be an illusion to claim that there are no negative effects associated with technology. One of the negative effects is on the perceptions of reality. In most cases, the replicated worlds created by electronic games, computers and more recently, the internet is widening the extent of teen’s experiences to simulation (Wiegman 367). Through electronic games, teens interact with simulated characters and creatures. In order to effectively accomplish this, the teens assume multiple identities to interact with strangers (and even robots) in the virtual worlds of MUDs and chat rooms.

At an extreme, real life is now reduced to two letters, ‘ rl,’ and real world experiences are simply a window on the computer screen. One impact of this ‘ blurring’ of reality and virtual reality may be that teens will have more difficulty in differentiating between what is real and what is virtual.

Additionally, the teens may become desensitized to behaviors perpetrated in artificial and simulated worlds, such as aggression, violence and killing.

Although the research on the effects of playing violent computer games is limited, preliminary evidence proves that playing such games may lead to increased aggressiveness and hostility in teens (Wiegman 369).

Conclusions

Teenagers use the computer more than young children or parents. Although playing specific computer games has immediate positive effects on iconic and attentional skills used by the game, there is still need for more research to determine if long-term computer and internet use (both game and nongame) can lead to long-term improvements in cognitive skills and academic achievement.

While much of the time on computers is spent alone, regulated computer use does not have negative effects on teen's social skills and activities. On the contrary, e-mail and the internet may actually help maintain interpersonal communication and sustain social relationships. It has been proved beyond doubt that there is a relation between violent games and teen's aggression. Although further research is still needed, preliminary surveys indicate that the increasing dominance of simulated worlds (vs. real world experiences) in teen's daily experiences has an impact on their developing identities and sense of reality.

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