Chapter 28
CyberPsycho Effect:
A Critical Study on the Impact of Internet Addiction

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ABSTRACT

The Internet has become a platform for different campaigns like political, social, cultural and marketing. Researchers are working on the effect of these services on human behavior and how the use of Internet and social network persuade the environment. This chapter focuses on the causes and effects of persuasive messages based on current trending news and events which can influence an individual's behavior. Cyberspace plus Psychological effect equals to CyberPsycho Effect leading to CyberPsycho attacks. In CyberPsycho attacks, an attacker uses cyberspace and social network to affect attitude or behavior of an individual or a targeted society, and achieve certain goals to attain political, religious, economical, and social gains. It motivates social media users towards a certain objective by spreading the persuasive messages in the form of texts, images or videos. The study is unique, valuable and compels the experts to understand the impact of Internet addiction.

INTRODUCTION

Present era is gradually becoming social media era. Human life is surrounded by machines and digital devices and gadgets. Inventions of low-cost digital devices like Internet of Things (IoTs) and robots make the digital world more useful and powerful; these are used in every field. People use them in every walk of life, scientists are working on to make these devices more intelligent and smart. With these devices, an individual can perform his work more effectively and efficiently and using the Internet one can share their work globally. The information shared over the Internet is useful and can be used by anyone from any part of the world. But due to the rapid development of smart phones and Internet enabled devices,

the Internet users are increasing exponentially and so are the different kinds of information shared by different kinds of persons. The information available is also used for different purposes, like betterment of the society or it may be used to harm someone or a targeted society. The social network sites play a key role in using the cyber world all the time, hence it can be said that everybody who is addicted to their smart devices is also addicted to the Internet to some extent.

Further, the extreme use of Internet also invites black hat adversaries, these adversaries may use information which is shared over the Internet and social network services for their benefit. Some of this activity falls under the category of cyber attacks which involves compromising the information. Cyber attack is defined as an attack initiated from a computer against a website, computer system or individual computer that compromises the confidentiality, integrity or availability of the computer system or information stored on it. Cyber attacks take many forms and are known as password trafficking, hacking, Internet fraud, SPAM, etc. Further, the Internet fraud using social engineering, exploitation malware, Internet harassment, extortion, bomb threats and blackmail impose varied challenges in the cyber world.

The study in this chapter analyzes the effects and their behavior leading to attacks which is completely different from previously defined cyber attacks. To date, most of the cyber attacks are either passive or active attacks whose objectives are to steal information or read information of users, these types of attacks do not attack onto the human mind or specifically attitude or behavior or perception or decision taking the ability of an individual in society. The study in this chapter discusses and categorizes cyber attacks where an attacker uses our cyber space and social network to affect our mental attitude or psychological behavior to achieve short-term or long-term goals. Further, the strategies in these attacks persuade an individual or society or community to attain certain objectives by spreading persuasive messages in the form of texts, images or videos to accomplish political, religious, socio-economic gains.

BACKGROUND

Recent advances in hardware and software technology are not only changing the dynamics of computing but, they are also changing the societal culture. In today's era computers are no longer used for storing, manipulating and retrieving information but, are used to influence our thoughts, relationships and decisions. The development in Smartphone and availability of the Internet in these devices plays a significant role in enlarging the impact of social network services in an individual's life and the society as a whole. It is a known fact that uses of social network, social media applications and websites are more used on the mobile platform as compared to the computer and laptop. Every individual who owns a Smartphone, approximately half of the total population in the world, are found to be actively involved on social networking sites. The social networking sites are known to affect users' behavior with themselves and others in the society on a daily basis, they are known to change an individual's or group's perspective of thinking and responsive nature.

The impact of this persuading magnitude of the social network in their daily lives is observed on volume of users. Many researchers and data analyst proposed many methods, architectures, approaches and techniques to observe this magnitude (Gupta et al. 2017; Mittal et al. 2013). Authors analysis the sentiments on social by tracing trending topics (Choi, 2014). Authors also examine the relationship of Social Networking Site (SNS) problematic usage with personality characteristics and depressive symptomatology (Giota et al. 2013). It is stated that social networking addict could be considered someone

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