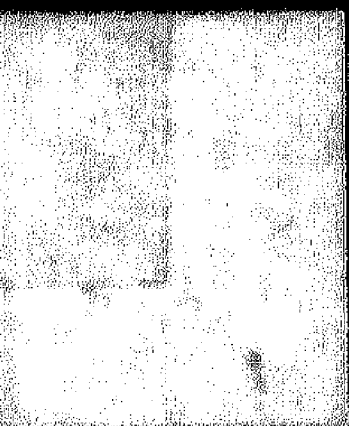
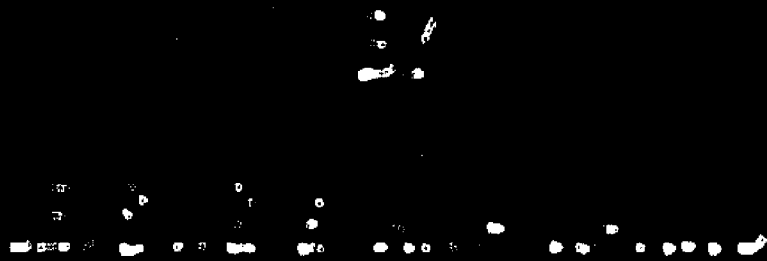
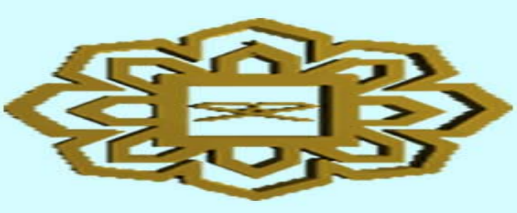


SECRET ADDITION AND PERSONALITY TYPES





INTERNET ADDICTION AND PERSONALITY TYPES

BY

JEYSING GNANA KANNU A/L MUTHIAH

DONATED TO THE LIBRARY OF
INTERNATIONAL ISLAMIC UNIVERSITY
BY

Date Received

A THESIS SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT

MANAGEMENT CENTER
INTERNATIONAL ISLAMIC UNIVERSITY
MALAYSIA

DECEMBER 1998

" Any new theory is first attacked as absurd; then it is admitted to be true, but obvious and insignificant; finally – it seems to be important, so important that its adversaries claim that they themselves discovered it. " – William James



ABSTRACT

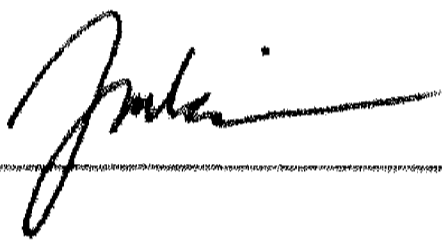
In this Information age, millions of people are using the Internet everyday for information, communication, research, electronic commerce, and entertainment. Some people who use the Internet, are finding it hard to know when to stop or how to control the usage and thus become addicted to it. Prior research has shown that some Internet users have lost their jobs, failed in their school or college and strained their social relationships due to spending excessive time on the Internet. The Internet started in Malaysia in 1992, and based on the present data, the number of Internet users are on the rise. This study explores to see if Internet addiction is prevalent in Malaysia, the pattern of Internet usage and the types of personality that are addicted to it. Previous research done in the area of Internet addiction has not investigated, whether different personality types, that is type A or type B personality, are more prone to Internet addiction. A questionnaire was created and posted on a website and it was publicized. A total of 175 valid responses were used for analysis. The respondents were classified as addicted to the Internet if they answered 'yes' to five of the 8 criteria given by Young (1996). In terms of addiction, 55 percent of the respondents are addicted to the Internet. 82 percent of respondents who are addicted to the Internet are having personality type A. However, the hypothesis testing, using the Chi-square test revealed no significant difference between Internet addiction and personality types. But this study found that a relationship existed between Internet addiction and mode of payment for Internet access at the 90 percent confidence level. It was also concluded that a relationship existed between Internet addiction and frequency of Internet access.

APPROVAL PAGE

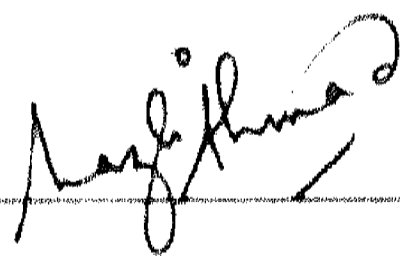
TITLE OF THESIS : INTERNET ADDICTION AND PERSONALITY TYPES
NAME OF AUTHOR : JEYSING GNANA KANNU A/L MUTHIAH

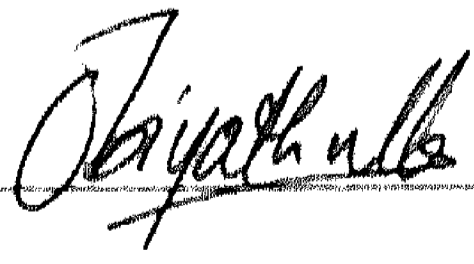
The undersigned certify that the above candidate has fulfilled the condition of the thesis prepared in partial fulfillment for the degree of Master of Management.

SUPERVISOR

Signature : 
Name : Dr. Wan Jamaliah Wan Jusoh
Date : 30th December 1998

ENDORSED BY :



Dr. Nik Nazli Nik Ahmad
Head, Master of Management Program
Date : 30th December 1998


Dr. Obiyathulla Ismath Bacha
Director, IIUM, Management Center
Date : 30th December 1998

DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by reference notes and bibliography is appended.

Date : 30th December 1998

Signature: 

Name : Jeysing Gnana Kannu A/L Muthiah

**@ Copyright by Jeysing Gnana Kannu A/L Muthiah and
International Islamic University Malaysia**

DEDICATION

This thesis is specially dedicated to

my beloved wife, Rose and my three 'angels' Abigail, Amanda and Andrea,
for their love, patience, understanding and sacrifice.

Thank you

ACKNOWLEDGEMENTS

First and foremost, I would like to praise and thank my Lord and savior Jesus Christ for endowing me with wisdom and strength to complete this thesis.

I want to thank and appreciate my supervisor, Dr. Wan Jamaliah Wan Jusoh for all her guidance, help, motivation and patience in helping me to complete this thesis. I also would like to thank Mr. Tham Chee Kuan for all his technical assistance in helping me to set up the website for the questionnaire. I want to especially thank Mr. Ramachandran for his expert advice with the statistical analysis for this study.

And last but not least, I want to thank my beloved wife, Rose, and my inspirations, that are my three daughters, Abigail, Amanda and Andrea for all their understanding, sacrifices, prayers and moral support.

TABLE OF CONTENTS

	Page
Abstract.....	ii
Approval.....	iii
Declaration.....	iv
Copyright Page.....	v
Dedication.....	vi
Acknowledgements.....	vii
Table of Contents.....	viii
List of Figures.....	ix
List of Tables.....	x
CHAPTER 1 : INTRODUCTION.....	1
1.1 Purpose of Study.....	5
1.2 Significance of Study.....	6
CHAPTER 2 : LITERATURE REVIEW.....	8
2.1 Internet History.....	9
✓ 2.2 Uses of Internet.....	10
2.3 Internet Development in Malaysia.....	14
✓ 2.4 Internet Addiction.....	19
2.5 Symptoms of Internet Addiction.....	21
2.6 Effects of Internet Addiction.....	27
2.7 Research Results on Internet Addiction and Usage.....	30
2.8 Treatment Strategies for Internet Addiction.....	37

2 9	Personality	42
CHAPTER 3	METHODOLOGY	49
3 1	Research Design.....	49
3 2	Population and Sampling	50
3 3	Research Instrument	51
3 4	Website Development for Questionnaire.....	54
3 5	Data Collection Procedure.....	56
3 6	Hypothesis of Study.....	58
3 7	Data Analysis Technique.....	59
CHAPTER 4	DATA ANALYSIS	60
4 1	Data Transformation.....	61
4 2	Results.....	62
	4 2.1 Demographic Factors.....	63
	4 2.2 Internet Usage Pattern.....	69
	4 2.3 Internet Addiction and Personality Types.....	75
4 3	Hypothesis Testing.....	77
CHAPTER 5	DISCUSSION, CONCLUSION AND RECOMMENDATION	87
5 1	Discussion on Findings	87
5 2	Recommendations.....	90
5 3	Suggestions for Future Research.....	92
	BIBLIOGRAPHY	94
	APPENDIX A: INTERNET ADDICTION QUESTIONNAIRE.....	100
	APPENDIX B: Sample of Results Obtained from the Website.....	107

LIST OF FIGURES

FIGURE	Pages
1. Categorization of Respondents According to Gender.....	63
2. Respondent's Religion.....	65
3. Pie Chart Showing Breakdown of Race.....	66
4. The Highest Level of Education of Respondents.....	67
5. Monthly Income of Respondents.....	68
6. Frequency of Internet Access.....	70
7. The Number of Hours Spent Per Week on the Internet.....	72
8. Payment for Internet Access.....	74

LIST OF TABLES

TABLE	Page
1. Comparison of Basic Characteristics in Benner, Thompson and Egger's Studies.....	34
2. Frequency and Percentage of Respondents Age Group.....	64
3. Marital Status.....	66
4. The Number of Years of Internet Usage.....	71
5. Hours Spent on the Types of Internet Services.....	73
6. Frequencies on Personality Types.....	75
7. Cross-tabulation of Internet Addiction and Personality Types.....	76
8. Cross-tabulation between Internet Addiction and Gender.....	77
9A. Cross-tabulation between Internet Addiction and Personality Types.....	78
9B. Chi-square Test for Internet Addiction and Personality Types.....	78
10A. Cross-tabulation between Internet Addiction and Gender.....	79
10B. Chi-square Test between Internet Addiction and Gender.....	79
11A. Cross-tabulation between Internet Addiction and Source of Payment for Internet Access.....	81
11B. Chi-square Test between Internet Addiction and Source of Payment for Internet Access.....	81
12A. Cross-tabulation between Internet Addiction and the Number of Hours Spent on the Internet.....	82

12B. Chi-square Test between Internet Addiction and the Number of Hours
Spent on the Internet..... 82

13A. Cross-tabulation between Internet Addiction and Number of Years of
Using the Internet.....83

13B. Chi-square Test between Internet Addiction and Number of Years of
Using the Internet..... 83

14A. Cross-tabulation between Internet Addiction and Frequency of Internet
Access..... 84

14B. Chi-square Test between Internet Addiction and Frequency of Internet
Access..... 85

15. Summary of the Hypothesis Testing..... 85

CHAPTER I

INTRODUCTION

The volatile movement of the human race into the dynamic explosion of the Information Age has created tremendous interest in the Internet. Internet is now available in over 90 countries and there are currently over 60 million users of the Internet worldwide. In the mid 1940's the micro technology computing started and the telecommunication technology also developed independently. The convergence of the two technologies: computing and telecommunication brought about Information Technology (IT). Then came the interactive content development, which combined with the computing and telecommunications to create the multimedia technology. The Internet came about when America's foremost cold war think tank (RAND Corporation), started building a post-nuclear command-and-control network in 1964. In 1969, ARPANET (Advanced Research Projects Agency Network), which was sponsored by the Pentagon emerged. This was originally used for military purposes. Later it became very useful also to scientist and researchers to share one another's computer facilities by long distance.

Then later, when the ARPANET failed, the network started becoming public domain and the basic technology was decentralized and it prompted many people to start linking

up with the branching complex of networks. On the commercial side, there was interconnectivity like Local Area Network (LAN) and Wide Area Network (WAN), within companies and countries spreading out and then when these networks were linked together it came to be known as the "International Network" or Internet.

People surf the Internet for various reasons like: e-mail (electronic mail), discussion groups (communications), long distance computing, file transfers, entertainment, research and business. As for the businessmen, Internet is also an avenue for business information of suppliers, vendors and a powerful medium of advertising. The Forrester research company, a United States market data firm, predicts that in the next five years Cyber commerce/Electronic commerce (business through the Internet) will grow to a staggering 40 fold from US\$ 8 billion in 1997 to US\$ 327 billion (Asiaweek, 1997).

Increased dependency on computers for information, games, fun, diversion, entertainment, and a wide range of legal, financial, health and social services can create problems for the society. " As the Internet become an increasingly important tool in our lives, it could, if allowed, dominate rather than serve our lives", says Orzack (1996). Another very attractive aspect of the Internet is the social aspect of cyberspace communications. Interaction through the Internet are done by various ways like e-mail, discussion groups ("newsgroups"), chat rooms, bulletin boards and MUD (Multi-User Dungeon or Dimension). According to Suler (1996) and Young (1996), the interpersonal exchange with others is so stimulating, rewarding and reinforcing that some people are finding it hard to know when to stop.

Psychologists are not sure yet what to call this phenomenon. Goldberg (1996), one of the pioneer researchers in this area, proposed the term 'Internet Addiction Disorder' (IAD) for compulsive Internet usage. Suler (1996), of Rider University calls it 'Computer Addiction' and 'Cyberspace Addiction'. Young (1996), a leading researcher in this area, used the following criteria for assessing Internet Addiction in her study, which includes the amount of time spent on the Internet, how much one misses the Internet when off-line, the ability to control on-line usage and reasons for staying on-line. She estimated that there were roughly 5 million American Internet addicts and a substantial number of these were children.

The Internet addiction does affect people seriously. "Some people are definitely hurting themselves by their addiction to the Computer and Cyberspace by losing their jobs, or flunk out of school, or are divorced from their spouses" (Suler 1996). These extreme cases are clear cut but for some it affects them in other ways like a drop in productivity at work, reduces time with people in their social world and family members also.

Suler (1996), discusses the process of why some people are addicted to Cyberspace role playing in the Internet and how this activity fulfills all of Maslow's hierarchy of needs. Cybersex is very attractive as it fulfills the first level of the hierarchy. Interpersonal contact fulfills the second level on the hierarchy by providing social recognition and a sense of belonging. Next self esteem is derived from mastery of the

communication environment itself. By striving towards development of oneself as a unique individual self-actualization is achieved.

So far the studies done on the Internet addiction is still in its infancy and is based mostly on western population. Questionnaires have been posted on Web Sites and respondents log-on to answer them. In Egger's (1996), study most of his respondents were from Switzerland. Studies on Internet Addiction in the Asian region, is sorely lacking.

Research in Internet addiction is now looking at characteristics of Internet users that might predispose them to addiction on the Internet. Matching the unique qualities of the Internet to some inherent personality predisposition could help account for the occurrence or vulnerability to Internet addiction. The data obtained from this study can significantly contribute to an individual's well-being as well as benefit the organization's they work in. Once 'diagnosed' of being prone to Internet addiction then that particular individual can be cautious and use his/her discretion in preventing themselves from being addicted. Organizations can use this information to help individuals who are addicted to seek treatment before they suffer from the adverse effects of addiction to the Net.

In Malaysia, the Internet started only in 1992 and the number of Internet users are on the rise. According to Ramachandran (1998), an IT Policy Technologist, "As the number of Internet users rise we are not only receiving the combination of computer and telecommunication technology itself but the culture that comes together with it".

Research in the area of Internet addiction in Malaysia is in its pioneering stage. Therefore, at this stage, we have to glean out a lot of information that is necessary and peculiar to our own people. This study attempts to answer questions like, are there Internet Addicts in Malaysia? And if so, what are their common characteristics? Do they have a common need? As King (1996), puts it "A full understanding of Internet addiction is only possible if a complete understanding of the aspects of Internet personal behavior, that are unique to Internet is obtained".

PURPOSE OF STUDY

The purpose of this study is to examine if there are any similarities in personality types, demographic factors and Internet usage pattern among individuals who are addicted to the Internet. This study attempts to look at the characteristics of Internet users that might predispose them to Internet addiction. This research also attempts to match Internet addiction to unique personality qualities and demographic factors of Internet users. This study tries to determine the patterns of the Internet usage among the Internet users who are addicted to the Internet.

SIGNIFICANCE OF STUDY

The data obtained from this study can contribute significantly to an individual's well being as well as benefit the organization in which the individual works. Individuals who are 'diagnosed' of being prone to Internet addiction can then be more cautious and use his or her discretion in preventing themselves from being addicted. Organizations can use this information to help individuals who are addicted to seek treatment before they suffer adverse effects of IAD.

Individuals who are addicted to the Internet can seek treatment, which will help them overcome this addiction. Some of the treatment strategies that can be utilized are like using external stoppers, setting goals and using reminder cards. They can also seek for help from on-line support groups like the Center for On-Line Addiction (COLA). Besides these, there are also virtual clinics, which provides treatment like the Virtual Clinic for Cyber-Related Issues, which is run by Dr. Kimberely Young.

Organizations that has individuals who are addicted to the Internet, can then take the necessary steps like organizing awareness programs, seminars, workshops and also prepare their counselors to meet these new challenges in identifying and giving support to Internet addicts. The productivity of the organization can then be increased when those employees affected by excessive Internet usage come out of their addiction to the Internet.

Organizations can also identify individuals who are more prone to Internet addiction, based on their characteristics, pattern of Internet usage and personality types, and keep a tab on them. And if they observe any excessive Internet usage then they can help the employees by referring them for treatment or help at an early stage itself. Organization can also set up policies and guidelines regarding the usage of Internet in the workplace.

In addition, the outcome of this study can be used to benchmark against similar studies conducted in developed nations. The results obtained can be an added value or creating value to the existing body of knowledge on Internet addiction. Also, the data and findings obtained from this study can be useful for policy formulation regarding the Internet.

In the next chapter, we will discuss about the Internet history, Internet development in Malaysia, uses of Internet, Internet addiction, past research results on Internet addiction and usage, treatment strategies for Internet addiction, and personality.

CHAPTER 2

LITERATURE REVIEW

Internet addiction is a new phenomenon that is sweeping through globally at a very rapid pace in this age of information technology. There is keen interest that is being displayed by psychologist in this area. Though the area of Internet addiction is still in its infancy, considerable amount of research has been carried out thus far.

Researchers are looking into identifying symptoms related to Internet addiction and its correlation to psychological, personality and demographic aspects. Psychologists and other Internet addiction researchers are trying to see empirically if at all there exists a pattern of similarities based on the aspects mentioned so that the knowledge of this new dimension of 'cyberpsychology' can be expanded.

In this chapter, we will discuss the aspects of Internet history, Internet development in Malaysia, uses of Internet, Internet addiction, symptoms of Internet addiction, the effects of Internet addiction, past research results on Internet addiction and usage, treatment strategies for Internet addiction, and personality.

INTERNET HISTORY

In the 1960's, the RAND Corporation, America's cold war think tank, was assigned the task of a command-and-control network for a post nuclear nation. A nuclear attack would reduce any conceivable network to tatters. In 1964, Paul Baran (a staff of RAND), proposed a network that would have no central authority, which was designed from the beginning to operate while in tatters. All the nodes in the network will be equal in status to all other nodes with its own authority to originate, pass, and receive messages.

The system proved so effective for military communications that it continued to be developed. By December 1969, there were four nodes on the infant network named ARPANet (Advanced Research Projects Agency Network), after its Pentagon sponsor. ARPANet enabled scientist and researchers to share one another's computer facilities by long distance. The ARPA's original standard for communications was known as "Network Control Protocol" (NCP). Later, NCP was superceded by a higher level, more sophisticated standard known as the "Transmission Control Protocol/Internet Protocol" (TCP/IP). TCP converts the messages into streams of packets of information at the source, then reassembles them back into messages at the destinations. IP handles the addressing, seeing to it that, packets are routed across multiple nodes and even across multiple networks with multiple standards.

In 1983, the military segment of ARPANET broke off and became MILNET. Since TCP/IP was public domain, and the basic technology was decentralized it was very difficult to stop people from barging in and linking up their powerful computers to the growing network of networks, which came to be known as the "Internet". The Internet has moved out from its original base in military and research institutions, into high schools, public libraries, commercial sector and even into the comfort of one's home.

USES OF INTERNET

The Internet is a vast system of computers that are networked or linked together, to exchange information. This global web of computer networks with high-speed fiber backbone connects users to the Net via modems or digital links provided by Internet service providers. By connecting computers to phone lines it enables people from all over the world to communicate with each other. Internet is a shared global resource that is not owned or regulated by anyone.

The Internet is basically used for four things: mail, discussion groups, long distance computing, and file transfer. Internet mail is "e-mail" or electronic mail and so much faster than postal mail. Postal mail is known by Internet users as snail mail. You can communicate with someone anywhere in the globe by instantly delivering your message to them and they can respond to you as soon as they read your message. E-mail can also