THE RELATIONSHIPS OF SOCIAL NETWORKING WEBSITES AND STUDENT ACADEMIC LEARNING IN SRI LANKAN UNIVERSITIES

By

K. K. T. N. Gunarathna

09/9058



This dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of MBA in information Technology.

Department of Computer Science & Engineering

004 10

University of Moratuwa

December 2010

105049



105049

Declaration

I confirm that, except where indicated through the proper use of citations and references, this is my own original work. I confirm that, subject to final approval by the Board of Examinations of the University of Moratuwa, a copy of this Dissertation may be placed upon the shelves of the library of the University of Moratuwa and may be circulated as required.

	20.04.11
K.K.T.N. Gunarathna	Date
MBA/IT/09/9058	
To the best of my knowledge the above particulars are correct. University of Moratuwa, s & Diss UOM Verified Signature	
Dr. Shahani Weerawarana (Supervisor)	Date
Department of Computer Science and Engineering	
University of Moratuwa.	
Approved by the examination committee:	

Department of Computer Science and Engineering,

University of Moratuwa, Sri Lanka.

MBA in IT,

December 2010

Abstract

Successful Learning is a challenge for any university. Hence it is an important task to be carried out in order to survive in various environmental changes and challenges. University students prefer having an 'IT-enabled' social networking methodology because; social networking tools can be considered as most popular, inexpensive, easy to use, and flexible learning support tools.

Social networking site is a website that provides a virtual community, for people interested in a particular subject such as friendship, kinship, financial exchange, dislike, sexual relationships, or relationships of beliefs, knowledge or prestige. The analysis on the impact of social networking websites on learning practices in the context of Sri Lankan universities is yet to be done. This research has been carried out in order to cater the above said need. The 'decomposed theory of planned behavior' is the chosen theoretical framework for this study. This framework helps to identify the practical factors influencing the adoption of social networking websites for learning. The conceptual framework developed further, by extending learning support aspects into the theoretical framework. The conceptual framework consists of four main concepts and the analysis is done in three steps, pair-wise. An online questionnaire is used to collect data from students who are studying in Sri Lankan universities.

Research result indicates that most of the students use social networking websites inside universities and are aware about the educational benefits of those sites. Further it reveals that there is an average level of students currently using social networking websites for educational purposes. Facebook is the most popular site among students in Sri Lankan universities and It reveals that the Facebook and Ning are the most best solution is to start with the implementation for academic learning.

Further results of this study prove that except subjective norms of students all the other factors are positive towards the intention to adopt social networking websites for academic learning. Further subjective norms of students has no effect on

Intention to adopt social networking websites for academic learning and student perceived behavioral control is the strongest factor influencing the intention to adopt. Another finding is that if anyone feels such an intention to adopt, then there is a very high possibility that they would go ahead and actually use social networking websites for academic learning. Since attitude and perceived behavioral control have a strong relationship with the intention to adopt social networking websites for learning, this is an indication to the university administration that they should take necessary steps to enhance students' attitudes and their behavioral controls in order to adopt social networking websites for academic learning.

The research also reveals that, the adoption of social networking websites highly influences the existing learning support practices of the universities. Communication and collaboration activities are the most influenced learning support practices when adopting social networking websites for academic learning in Sri Lankan universities. Publishing and sharing activities are the other learning support practices considered in this study. Sri Lanka. Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk

This research identifies the current usage behavior of social networking websites and level of importance of several factors influencing the adoption of social networking websites for academic learning. The efficiency of future social networking website implementations will be increased, if the identified factors are taken as suggestions and necessary steps are taken to enhance the university background prior to technical implementation. Thus the findings of this research project will be useful for students, lecturers, public and private higher educational institutions, in order to ensure efficient use of social networking websites for academic learning, particularly if they are planning to adopt to social networking sites for learning for the first time.

Acknowledgement

Firstly, I would like to extend my sincere gratitude to my supervisor Dr. Shahani Weerawarana, Department of Computer Science and Engineering, University of Moratuwa, for her invaluable advice and guidance.

I also thank Dr Chandana Gamage, Course Coordinator, Department of Computer Science and Engineering, University of Moratuwa, for providing continuous support for data collection and advice to carry out the research successfully.

I also thank Mrs. Vishaka Nanayakkara, Head of the department, Department of Computer Science and Engineering, University of Moratuwa, for providing advice to carry out the research successfully.

I further extend my deepest gratitude to all academic and non-academic staff of Department of Computer Science & Engineering senior students and library staff of the University of Moratuwa for their support in numerous ways.

I sincerely thank all the lecturers and students in Sri Lankan universities for extending their support for data collection and by providing their feedback and assistance to this research exercise. Finally thank my family and friends. Without their help and support this endeavor would not have been possible.

K.K.T.N.Gunarathna MBA/IT/09/9058

Table of Contents

	ation	
Abstrac	ct	ii
Acknow	wledgement	. iv
Table o	of Contents	v
List of	Tables	viii
List of	Figures	x
List of	Abbreviations	xii
CHAP	TER 1: INTRODUCTION	1
1.1	Background and Motivation	1
1.2	Social Networking Websites	4
1.3	History of Social Networking Websites	7
1.4	Research Problem University of Moratuwa, Sri Lanka.	9
1.5	Objectives. Electronic Theses & Dissertations WWW.lib.mrt.ac.lk	. 10
1.6	Importance and Benefits of the Study	
СНАР	TER 2: LITERATURE REVIEW	
2.1	Introduction	
2.2	Social Networking Websites	
2.3	Social Networking Types and Features	15
2.4	Popular Social Networking Websites	17
2.5	Social Networking Websites Usage in Global Context	22
2.6	Social Networking Websites Usage in Local Context	23
2.7	Social Networking websites and Privacy	28
2.8	Social Networking Websites and Student Learning	30
CHAI	PTER 3: RESEARCH METHODOLOGY AND DESIGN	47
3.1	Introduction	47
3.2	Research Methodology	47
3.3	Population, Sample Selection and Sample Size	48

3.4	Theoretical Framework	49			
3.5	Conceptual Model				
3.6	Research Hypothesis				
3.7	Measurements and Measures				
3.8	8 Conceptualization				
3.9	9.9 Preliminary Data Collection				
3.10	.10 Method of Data Collection				
3.11	11 Data Analysis				
CHAI	PTER 4: DATA ANALYSIS AND RESULTS	68			
4.1	Introduction	68			
4.2	Reliability and Validity of the Data Set	68			
4.3	Rules of Coding	74			
4.4	Data Distribution University of Ivloratuwa, Sri Lanka.	75			
4.4	.1 Participants Electronic Theses & Dissertations	75			
4.4	.2 Data Distribution	82			
4.4 4.5	.2 Data Distribution				
	.2 Data Distribution	92			
4.5	.2 Data Distribution Objective 1: Current SNS usage in Sri Lankan Universities	92 101			
4.5 4.6	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS	92 101 109			
4.5 4.6 4.7	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities	92 101 109 113			
4.5 4.6 4.7 4.8 4.9	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing	92 101 109 113			
4.5 4.6 4.7 4.8 4.9	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis	92101109113114			
4.5 4.6 4.7 4.8 4.9 CHA	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis PTER 5: CONCLUSION AND RECOMMENDATIONS	92101109113114115			
4.5 4.6 4.7 4.8 4.9 CHA 5.1	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis PTER 5: CONCLUSION AND RECOMMENDATIONS Introduction	92101113114115			
4.5 4.6 4.7 4.8 4.9 CHA 5.1 5.2	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis PTER 5: CONCLUSION AND RECOMMENDATIONS Introduction Summary of Contribution	92101109113114115115			
4.5 4.6 4.7 4.8 4.9 CHA 5.1 5.2 5.3	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis PTER 5: CONCLUSION AND RECOMMENDATIONS Introduction Summary of Contribution Recommendations	92101113114115115122			
4.5 4.6 4.7 4.8 4.9 CHA 5.1 5.2 5.3 5.4 5.5	Objective 1: Current SNS usage in Sri Lankan Universities Objective 2: The Factors influencing adoption of SNS Objective 3: Impact on academic learning support activities Summary of Hypothesis Testing Generalization of the Analysis PTER 5: CONCLUSION AND RECOMMENDATIONS Introduction Summary of Contribution Recommendations Limitations	92101109113114115115122126			



List of Tables

Table 1.1: The most popular social networking websites	6
Table 2.1: Comparison between the focus of Web 1.0 and 2.0 technologies	.15
Table 2.2: Evolution of learning from Web 1.0 to 2.0	.30
Table 2.3: Comparison of SNS and CMS tools	43
Table 2.4: Comparison of Faculty and student perspectives on SNS in Education.	46
Table 3.1: Section 1 Variables	58
Table 3.2: Section 3 Variables	60
Table 3.3: Operationalising the Variables	65
Table 4.1: Reliability Statistics – Attitude	69
Table 4.2: Item-Total Statistics niAttitude of Moratuwa, Sri Lanka	69
Table 4.3: Reliability Statistics – Subjective Norms Www.iio.hirt.ac.ik	70
Table 4.4: Reliability Statistics – Perceived Behavioral Control	70
Table 4.5: Item-Total Statistics – Perceived Behavioral Control	71
Table 4.6: Reliability Statistics - Intention	71
Table 4.7: Item-Total Statistics – Intention	72
Table 4.8: Reliability Statistics – Adoption SNS	72
Table 4.9: Reliability Statistics – Communication and Collaboration	73
Table 4.10: Item-Total Statistics – Communication and Collaboration	73
Table 4.11: Reliability Statistics – Publishing and Sharing	74
Table 4.12: Rules of Coding	75
Table 4.13: Sample Demographics – Gender	75
Table 4.14: Sample Demographics – Age	76
Table 4.15: Sample Demographics – Universities	78
Table 4.16: Sample Demographics – Role at Universities	79

Table 4.17: Sample Demographics – Faculty	81
Table 4.18: Descriptive Statistics of the Variables.	83
Table 4.19: Descriptive Statistics for Attitude	84
Table 4.20: Descriptive Statistics of the Subjective Norms	85
Table 4.21: Descriptive Statistics of the Perceived Behavioral Control	86
Table 4.22: Descriptive Statistics of the Intention	87
Table 4.23: Descriptive Statistics of the Adoption SNS	88
Table 4.24: Descriptive Statistics of the Communication and Collaboration	89
Table 4.25: Descriptive Statistics of the Publishing and Sharing	91
Table 4.26: Using SNS inside the Universities	92
Table 4.27: Awareness of Educational Benefits in SNS	93
Table 4.28: Friends' count in SNS	95
Table 4.29: SNS Preference Level Lectronic Theses & Dissertations	97
Table 4.30: SNS Usage Frequency WWW.lib.mrt.ac.lk	99
Table 4.31: SNS in Education	100
Table 4.32: Correlation of Hypothesis 1	102
Table 4.33: Correlation of Hypothesis 2	104
Table 4.34: Correlation of Hypothesis 3	106
Table 4.35: Correlation of Hypothesis 4	108
Table 4.36: Correlation of Hypothesis 5	110
Table 4.37: Correlation of Hypothesis 6	111
Table 4.38: Summary of Hypothesis Testing	113

List of Figures

Figure 1.1: Social Network	5
Figure 1.2: Launch Dates of Major Social Network Sites	8
Figure 2.1: Social Networking weekly usage Active Internet Universe	22
Figure 2.2: Computer literacy of household population (5-69 years) by province	.23
Figure 2.3: Percentage of Households with computers by province	.24
Figure 2.4: Awareness of Household members about internet	.24
Figure 2.5: SNS restriction in organizations – Sri Lanka	.26
Figure 2.6: Variety of ways of learning in social software	.41
Figure 3.1: Research Methodology	.47
Figure 3.2: The decomposed theory of planned behavior	.51
Figure 3.3: Conceptual Model	.53
Figure 3.4: Attitude Electronic Theses & Dissertations	
Figure 3.5: Subjective Norms	.56
	.57
Figure 3.7: Analysis Section 1	58
Figure 3.8: Analysis Section 2	59
Figure 3.9: Analysis Section 3	60
Figure 4.1: Sample Demographics – Gender	76
Figure 4.2: Sample Demographics – Age	77
Figure 4.3: Sample Demographics – Universities	78
Figure 4.4: Sample Demographics – Role at Universities	79
Figure 4.5: Sample Demographics – Comparison of Universities with their Roles.	80
Figure 4.6: Sample Demographics – Faculty	81
Figure 4.7: Sample Demographic—Comparison of Universities with their Faculty	82
Figure 4.8: Distribution of 'Attitude'	84

Figure 4.9: Distribution of 'Subjective Norms'	85
Figure 4.10: Distribution of 'Perceived Behavioral Control'	86
Figure 4.11: Distribution of 'Intention'	87
Figure 4.12: Distribution of 'Adoption of SNS for Student Academic Learning'	·88
Figure 4.13: Distribution of 'Communication and Collaboration'	90
Figure 4.14: Distribution of 'Publishing and Sharing'	91
Figure 4.15: Using SNS inside the Universities	93
Figure 4.16: Awareness of Educational Benefits in SNS	94
Figure 4.17: Account availability in SNS	94
Figure 4.18: Friends' count in SNS	95
Figure 4.19: Peers as Friends	96
	97
Electronic Theses to Dissertations	98
Figure 4.22: SNS Usage Frequency W.lib.mrt.ac.lk	
Figure 4.23: SNS in Education	100
Figure 4.24: Scatter Plot for Attitude and Intention to Adopt SNS	102
Figure 4.25: Scatter Plot for Subjective Norms and Intention to Adopt SNS	104
Figure 4.26: Scatter Plot for PBC and Intention to Adopt SNS	106
Figure 4.27: Scatter Plot for Intention and Actual Behavior	108
Figure 4.28: Scatter Plot for Adopting SNS and Communication	110
Figure 4.29: Scatter Plot for Adopting SNS and Publishing and Sharing	112

List of Abbreviations

Abbreviation	Description
CMS	Course Management Systems
IT	Information Technology
OSN	Online Social Networking
PBC	Perceived Behavioral Control
SL	Sri Lanka
SLU	Sri Lankan Universities
SN	Social Networking
SNS	Social Networking Sites University of Moratuwa, Sri Lanka.
ТРВ	Theory of Planeds Behavior ertations www.lib.mrt.ac.lk