SMART PHONES USAGE AMONG COLLEGE STUDENTS

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ABSTRACT

The study veered into the actual use of smartphones among college students of two colleges of the University of Perpetual Help-Calamba. The benefits of the actual use of smartphones like sending messages (SMS), calling, chatting, opening documents, checking e-mails, internet browsing and downloading informative files that have shrunk the globe and erased the borders of getting information and learning processes were measured according to parameters popularized by Lenhart, Maguth and others. Flurry Analytics by Simon Khalafon and Mary Meeker was used to determine the types of users. The study further looked into the difference on the perception of the benefits of usage between genders.

Although Socializations in forms of Facebook, Twitter &Instagram are smartphone features *often* used by college students, Aid to Learning like using it as calculator, taking down notes and online search on urgent topic about the subject came very close. Entertainment, like listening to music and taking pictures were also very popular use of smartphones among students. However, despite that benefits of smartphone usage transcends genders, majority of the female respondents were considered super to addict users fifty-six percent (56%) and eleven percent (11%) higher tendency to be addicted than males.

KEYWORDS: Use of Smartphones, Benefits of Smartphones, Type of Smartphone Users

INTRODUCTION

Smartphone provides an interactive features for an increasingly wider users around the region and the world. It has become an integral part of everyday student's life. The development of smartphones began in the early 1990's and exploded in 2007 dominated by different operating systems with continuous development. In 2011 RBC Capital analyst, Dan Frommer projected that mobile phone sales are expected to outstrip PC sales and the smartphone users worldwide will triple from 165 million to over 500 million within the few years. Developments of the mobile phones popularly called smartphones allow users to perform activities such as sending text messages, calling, chatting, opening documents, checking e-mails, browsing internet and downloading files in a very convenient way. Smartphone technology provides immense benefits for users as they access and disseminate information rapidly.

The growth of smartphone users for the last three years has inspired the researchers to investigate smartphone actual usage among college students.

OBJECTIVES OF THE STUDY

This study delved closely into the frequency of how smartphones are used for information, aid to learning processes, socialization, entertainment and emergencies. This study specifically aims to find out what can smartphone do to the learning lives of college students other than just an indispensable gadget for communication and socialization. While

the use of smartphones has plenty of downsides, depending on the user, they are trendy and fashionable that function like laptops, yet handy and packed with aid-to-learning features and functions such as checking electronic mails, internet browsing, global positioning system (GPS), dictionaries, notes related documents in PDF & Word and access to social networking sites like Facebook, Twitter and Instagram. Extra features like music, video, games, and camera applications summed up to be very handy but apparently limited perspective about the smartphones for exciting student life. In this study the researchers further explored what smartphone can actually do and taking into consideration on understanding better the type of users and how smartphones are actually used by selected university students.

Review of Related Literature and Studies

This review deals with the relevant literature and studies, both foreign and local provided deeper insights and clearer path and parameters to this research particularly on smartphone usage by selected students.Thefrequency ofpositive and negative consequences of smartphones, the role of mobiles in improving access to education and the rise of the mobile addict by Flurry Analytics were given in-depth perceptions and synthesis.

Benefits of Smartphone Usage

Lenhart, Smith and Zickuhr, (2011) Recent Pew Internet and American Life Survey says that 30 percent use their cell phones to follow local news and 42 percent use their phones for weather updates. These devices are giving highly mobile citizens the ability to access information and communication. Maguth (2013) further contends that smartphones hold many capabilities as computers. These functions include using text messaging to search and translate, sending out free notices to students and parents, and making PowerPoint presentations interactive.

Hanson *et. al*. (2011). This generation has grown up in a technologically rich world, using mobile phones on chat rooms, electronic mails, computer games, and listening to music and watching TV and videos. According to Tindell and Bohlander (2012) in an emergency, text messages can be sent directly to students' phones informing them of the source of the emergency and instructions on how to respond.

Cellphones as discussed by Hingorani, *et a*l. (2012) can access social media sites, such as Facebook and Twitter in addition to the traditional use of calling and sending text messages. Universities also used cellular phones to advertise campus events and happenings, to promote the university brand among their students and to stay connected for a safer campus. Balakrishnan & Raj (2012), female students in Malaysia and Australia use their phones as a security device to contact others when they are in danger.

Oksman, (2010) stressed that in addition to new media, the traditional media such as newspapers, radio and television are also made available on the smartphone through the Internet. Dean, (2010) Ryerson University students' experience and expectancy with their mobile library site, "searching for articles, reading electronic Books, checking out books, and contacting librarian or getting research help" were students' top future request. It further stressed that text messaging and e-mailing are two of the most commonly used functions on smartphones among college students, followed by reading news, watching videos and reading books.

Alfawareh and Jusoh (2014). Smartphone usage includes making calls, checking email and website pages, sending text messages, reading documents, taking pictures, browsing Internet, downloading software, listening to music, taking video, watching TV, watching movies, use as an alarm clock and use as a watch. According to University of Michigan's

electrical engineering and computer science professor Elliot Soloway, "in a student's capable hands, especially with numerous features like a camera, a GPS, and an accelerometer, a smartphone might as well be a rocket ship".

Students Use of Smartphone

Froese, *et al.* (2012) employed a self-report survey to assess students' cell phone activity in classes and their expectations of the effects of such activity on learning outcomes. In October through December, 2009, 693 students at seven colleges and universities across the United States participated in the study. It was found out that cell phones distract students from learning and it confirmed that students expect texting to disrupt their classroom learning. However, having only 6 minute to complete the survey pressure might affect the results derived from their answers.

Tindell and Bohlander (2012) embedded the survey of 269 college students from a private university in north-eastern Pennsylvania to gain understanding of the use and abuse of cell phones in a college classroom setting, and to potentially aid in policy-making decisions. The researchers found that students are spending time texting and are not paying attention to the class lecture.

Elder, in 2013 conducted surveys of eighty-eight (88) undergraduate college students enrolled in Educational Psychology class at a south-eastern land grant university and found that students who used their cell phones did anticipate lower scores than students who did not, indicating its distracting nature for learning. This updated descriptive evidence on students' beliefs and self-reported use of cell phones. Moreover, students who used their cell phones while in lecture would not retain as much information as those who did not was not supported.

Alfawareh and Jusoh (2014) collected surveys of 324 undergraduates' students at Najran University to verify trends in smartphones under two categories: normal usage and usage for learning. It was found that smartphones have been used to replace desktop or mobile computers and further revealed that university students have not fully utilized their smartphones for learning purposes. It acknowledges smartphone's disruptive effects of texting on students learning.

The Consequences of Smartphone Usage on Students

Baker, Lusk and Neuhauser (2012) said faculty members should address the use of electronic devices in the classroom in their syllabi. No present theory addresses this, but offers an important avenue the appropriateness of electronic devices in the classroom.

According to Hanson, Drumheller, Mallard, McKee and Schlegel (2011) students in the library used email, instant messaging and web-surfing rather than checking the library's online resources. Although students want to make academics a priority, they have a difficult time balancing their school life with their need for financial and social support. It was found that students focus more on updating their Facebook status than downloading their homework assignments.

The Role of Mobiles in Improving Access to Education

Valk, Rashid & Elder, (2010). Analysed evidences of mobile phone-facilitated mobile Learning in contributing to improve educational outcomes in the developing countries of Asia by exploring the results of five m-Learning pilot projects that took place in the Philippines, Mongolia, Thailand, India, and Bangladesh. *"The Philippines project indicates that m-Learning, and the new learning that it facilitates, affords great opportunities for such learners. However, as specifically shown by the Philippines, Bangladesh and Thailand projects, mobiles can reduce barriers to educational*

outcomes comparable to those of traditional educational methods".

The Rise of the Mobile Addict

According to Simon Khalafons' article in 2014, in May of 2013, KPCB's Partner and world-renowned analyst Mary Meeker shared an interesting statistics Internet Trends Report*: "Theaverage mobile consumer checks their device 150 times a day"*. Flurry Analytics used refer to as the *"Mobile Addict":*52% female and 48% male, compared to 48% female and 52% male for average mobile users. The 8% number is significant: In the total Mobile Addict population of 176 million, 15 million more female Mobile Addicts than male Mobile Addicts". The Mobile Addict segment over indexed on the 13-17 (Teens), 18-24 (College Students) and 35-54 (Middle Aged) age segments. Middle Aged consumers constituted 28% but only constituted 20% of the average mobile consumer.

Synthesis

Literatures that explained the benefits of smartphone in a technically rich world in touch with each other in a flex of a finger are those of Lenhart et al., Oksman, Alfaware and Jusoh. Smartphones have been used to replace desktop and mobile computers because of their capabilities as computers. Smartphones are allowing on-the-go citizens like students the ability to communicate,access to information and learning processes is postulated by Elder,Tindell and Bohlander. Although Hanson *et al.*, particularly viewed the downside effect of smartphones and showed that some students are more focused on social networking sites than downloading and doing homework and having difficult time in balancing their school life. Researchers Valk, Rashid & Elder found out that use ofmobile phones in the Philippines improves educational outcomes of M-Learning or Mobile Learning compared to the traditional educational methods.

Conceptual Framework

The study was anchored on Individual Information Technology (IT) Acceptance postulated by Sahar Ghazizadeh and the data from Flurry Analytics popularized by Simon Khalafon and Mary Meeker as to the type of smartphone users. To measure the usage benefits of smartphone, the theories of Lenhart et al. and Maguth were used. Constructs were deduced from this work towards understanding the issue of smartphone benefitsin the learning processes.

RESEARCH METHODOLOGY

Research Design

Descriptive-evaluative design was used in describing smartphone usage among college students. Conducted in two Colleges (College of International Hospitality Management and the AB Communication students from the College of Arts and Sciences)at the University of Perpetual Help System, Calamba City. It described the current use and evaluated the capability features of smartphones in five parameters.

Respondents and Sampling

An initial survey was conducted to determine smartphone-user students in two colleges. There were sixty- seven (67) enrolees from AB Communication and one hundred eighty three (183) from BS HRM. Sixty one (61) are smartphone users or 91% from AB Communication; sixty four (64) or 35% from BS HRM. A total of one hundred twenty five (125) targeted respondents, or 50% of the total enrolees of the two colleges. Actual participants or those who returned the questionnaires within three days allotted by the researchers was only one hundred (100) respondents or a response rate

80% of smartphone users.

Research Instruments and Statistical Treatment

The questionnaire has three parts: Part one consisted of the demographic profile.The second part consisted of questions regarding the frequency of using smartphone popularized by the Flurry Analytics on a regular day, a selection of: above 60 times, 16 to 60 times or under 16 times. Part three was divided into five indicators smartphone uses in terms of socialization, information, entertainment, emergency and aid to learning from the works of Maguth, *el al.* Frequency distribution, Percentage and Weighted Mean were used to process the data gathered.

Data Gathering Procedure

The researchers distributed the survey questionnaires along the corridors, student lounge, library and classrooms. Filled-up questionnaires were retrieved after three (3) days with 80% response rate.

FINDINGS OF THE STUDY

Type of Smartphone Users

Eighty-five percent (85%) smartphone student-users at the University of Perpetual Help System borders between Super Users to Mobile Addicts. Students launched applications above 60 times a day (Mobile Addicts):12%were male and 23%) female students. Users who launched applications 16 to 60 times a day (Super Users): Sixteen percent (16%)male and 33%female.Regular Users who launched under 16 times on a regular day: male,9% and female 6%.

Smartphone Usage among College Students

College students despite eighty-five percent (85%) of them are considered addicts to heavy users, its usage in the view-point of students particularly on learning processes, is perceived to be beneficial only at times according to the five parameters inspired from the works of Lenhart, and Maguth with overall weighted mean of 3.13 verbally interpreted as Sometimes.

Socialization

Socialization (WM 3.72)is the most widely used features of Smartphones particularlyin networking sites, sending text messages, make a phone calls and chat conversation. Checking electronic mails is the least used smartphone features.

Information

Smartphones are sometimes used tosearch information (WM 3.48) on Google, Bing and Yahoo, get school announcements, to get news and weather updates. It is least used in getting Sports Updates.

Entertainment

Smartphones are very popular gadget among college students and often times used for entertainment particularly to listen to music (3.65), taking pictures, watch videos and games. Radio feature was least used as entertainment.

Emergency

Using smartphones as flashlights (3.46) during emergencies is one of it favourite features among college students. It is lamentable that using smartphones to get the plate number of a reckless driver or to call the police station when in

danger were least utilized.

Aid to learning

Smartphones are best favoured to be used as calculators (3.46), to take down notes, read documents in PDF & Word and to search online on urgent topic about subject and east used to read Electronic books.

Benefits of Smartphone Usage According To Gender

Male

Students considered the use of smartphone to be beneficial at times with weighted mean of 3.06. Although they have the tendency to use them heavily on entertainment particularly listening to music and watching videos.

Female

Students also considered the use of smartphone to be beneficial at times with weighted mean of 3.19. Although they have the tendency to use them heavily on Socialization particularly on social networking like *Facebook, Twitter* and *Instagram*.

CONCLUSIONS

Following conclusions are made:

- Students from the two colleges of the University of Perpetual Help are bordering towards a *learning processes-impairing* type of smartphone users.

- Smartphones are commonly used only for Socialization.

- Smartphonesfeatures are not optimized particularly on emergencies or seek for help when in danger.

RECOMMENDATIONS

- Further study should be undertaken as to the specific extent when can smartphone usage can be disruptive of learning processes and detrimental to studies.

- The professors should give orientation on the use of smartphones especially for information to maximize their use as an aid to learning processes.

- School Administration may create a hub wherein texts messages and pictures can be sent twenty-four seven (24/7) for a safe campus and immediately aid for student in danger.

REFERNCES

1. Angulo, J., Bermudo, P. J., Buñag, W., Clapano, E., Cuy, N., Mendoza, E.J., &   Sicat   R. (2011). The Perpetualite: Identity and Dignity. *Mindshapers Co., Inc.*

2. Littlejohn, S. W. & Foss, K.A. (2009). Encyclopedia of Communication Theory. *SAGE Publications, Inc.*

3. Gay, L. R., Mills, G. E., & Airasian, P. W. (2011). Educational research: competencies for analysis and applications. Boston, MA [etc.:Pearson/Prentice Hall.

4. Ghazizadeh, S. (2012). Acceptance theory on mobile services and applications. *Vaasan Ammattikorkeakoulu University of Applied Sciences*.

5. Albarran, A. B., & Hutton, B. (2009). Young Latinos use of mobile phones: A cross-cultural study. *Revista de Comunicacion, 8* (1). 95-108. Retrieved from: http://beta.udep.edu.pe/comunicacion/rcom/pdf/2009/Art095-108.pdf

6. Alfawareh, H.M., and Jusoh, S. (2014). Smartphones usage among university students: Najran University case. *International Journal of Academic Research, 6*(2). 321-326. doi: 0.7813/2075-4124.2014/6-2/B.48

7. Baker, W.M., Lusk, E.J., & Neuhauser, K.L. (2012).On the use of cell phones and other electronic devices in the classroom: Evidence from a survey of faculty and students. *Journal of Education for Business, 87*(5). 275–289.doi:10.1080/08832323.2011.622814

8. Balakrishnan, V., & Raj, R. G. (2012). Exploring the relationship between urbanized Malaysian youth and their mobile phones: A quantitative approach. *Telematics and Informatics, 29*(3). 263–272. doi:0.1016/j.tele.2011.11.001

9. Brown, K., Campbell, S. W., & Ling, R. (2011). Mobile phones bridging the digital divide for teens in the US?. *Future Internet, 3*(2), 144–158. doi: 0.3390/fi3020144

10. Elder, A.D. (2013). College students' cell phone use, beliefs, and effects on their learning.*CollegeStudentJournal,47*(4).585-592.Retrievedfrhttp://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=27&sid=a3638b70-b6d0-4808-8f81 5018d1658798%40sessionmgr115&hid=107

11. Froese, A. D., Carpenter, C. N., Inman, D. A., Schooley, J. R., Barnes, R. B.,Brecht, P. W., & Chacon, J. D. (2012). Effects of classroom cell phone use on expected and actual learning. *College Student Journal. 46*(2). 323-332. Retrieved from: http://web.a.ebscohost.com/ehost/pdfviewer?vid=5&sid=c47a113c-266f-4e8a-9da8 4c55fc6c2d2f%40sessionmgr4001&hid=4106

12. Hanson, T.L., Drumheller, K., Mallard, J., McKee, C., & Schlegel, P. (2011).Cell phones, text messaging, and Facebook: Competing time demands of today's college students. *College Teaching,59*(1). 23–30. doi: 10.1080/87567555.489078

13. Hingorani, K.K., Woodard, D., & Danesh, N.A. (2012). Exploring how smartphones supports students' lives. *Issues in Information System,13*(2).33-40.Retrieved from: http://iacis.org/iis/2012/83_iis_2012_33-40.pdf

14. Lenhart, A., Purcell, K., Smith, A., & Zickuhr K. (2011). Social Media & Mobile Internet Use among Teens and Young Adults. *Washington, DC: Pew Internet & American Life Project*. Retrieved from: http://www.sde.idaho.gov/site/idahoStatePreventionConf/IPC%202011%20Presentations/Using%20Social%20Me dia/PIP Social Media and Young Adults Report Final

15. Maguth, B.M. (2013). The educative potential of cell phones in the social studies. classroom. *The Social Studies, 104*(2). 87–91. doi: 10.1080/00377996.2012.655347

16. North, D., Johnston, K., & Ophoff, J. (2014). The use of mobile phones by South African university students. *Issues in Informing Science and Information Technology, 11*(2). 115-138. Retrieved from: http://iisit.org/Vol11/IISITv11p115-138North0469.pdf

17. Shao, G. (2009). Understanding the appeal of user-generated media: A uses and Gratification perspective. *Internet Research,19*(1).7-25.doi:http://dx.doi.org/10.1108/10662240910927795

18. Smart, N. (2012). A survey of smartphone and tablet computer use by colorectal surgeons   in   the   UK   and continental Europe. *Colorectal Disease*, 14(9), 535 538. doi: 10.1111/j.1463-1318.2012.03161.

19. Tindell, D. R., & Bohlander, R. W. (2012). The use and abuse of cell phones and text messaging in the classroom: A survey of college students. *College Teaching.60*(1).1-9. Retrieved from http://www.tandfonline.com

20. Valk, J.H., Rashid, A.t., & E.L. (2010). Using Mobile Phones to Improve Educational Outcomes:An Analysis of Evidence from Asia. *International Review of Research in Open and Distance Learning, 11*(1). 117-140. Retrieve from:http://files.eric.ed.gov/fulltext/EJ881581.pdf

21. Venkatesh, V., Thong, J.Y.L., & Xu X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1). 157-178.

22. Wilson, S., & McCarthy, G. (2010). The mobile university: from the library to the campus. *Reference Services Review, 38*(2). 214-232. doi: 10.1108/00907321011044990

23. Arciaga, N. (2014). Cliques: its relationship to students' educational involvement among communication   and psychology students of the University of Perpetual Help System Dalta Calamba. *Undergraduate Thesis*

24. Dizon, M. (2012). The effects of text messaging on the study habits among the selected students of college of arts and sciences and education of University of Perpetual Help System Dalta- Calamba Campus.*Undergraduate Thesis*.

25. Dean, J. (2010). Smartphone user survey: a glimpse into the mobile lives of college students. Retrieved from: http://testkitchen.colorado.edu/projects /smartphone/smartphone-survey/ Information technology (IT) acceptance theory. Retrieved from: http://www.jstor.org/stable/ Khalafon, S. (2014). The rise of the mobile addict. Retrieved from: http://flurrymobile.tumblr.com/post/115191945655/the-rise-of-the-mobile-addict

26. Mugenda, O. M., & Mugenda, A. G. (1999). Research methods: Quantitative and qualitative approaches. Nariobi, Kenya: African Centre for Technology Studies

27. Oksman, V. (2010).The mobile phone: a medium in itself. Retrieved from:VTT Technical Research.