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Convenience or Nuisance?: The 'WhatsApp' Dilemma

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Abstract

WhatsApp sends real-time messages and is one of the world's most popular communication applications in the 21st century. While this study extends the current knowledge on the use of WhatsApp, it also highlights the challenges of WhatsApp use by young people. The purpose of this study is to examine the domestication of WhatsApp among young people, specifically the undergraduates at Universiti Brunei Darussalam. Results showed how young people perceive WhatsApp as a 'convenient' communication application in their everyday lives. Some of the critical issues arising from the use of WhatsApp included distractions and exposure to unregulated messages or information.

1. Introduction

Since its introduction in 2009, Whatsapp, a mobile instant messaging application, has reached 500 million users worldwide, sharing 700 million photos and 100 million videos daily (Acton & Koum, 2014). Built as an alternative to short messaging service (SMS), Whatsapp offers real-time texting or communication, including the ease of sharing information (e.g. contact list) or media content (e.g. audio, video files, images, location data). In recent years, while a growing body of literature has investigated the use of WhatsApp (Church & Oliveria, 2013; Soliman & Salem, 2014; O'Hara, Massimi, Harper, Rubens & Morris, 2014; Devi & Tevera, 2014), there is little research on the effects of WhatsApp use towards student's learning and performance (Bere, 2012; Yeboah & Ewur, 2014). Thus, this study aims to extend the current knowledge on the use and effects of WhatsApp, highlighting the challenges of

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WhatsApp use by young people. The purpose of this study is to examine the domestication of WhatsApp among young people, specifically the undergraduates at Universiti Brunei Darussalam. This study seeks to contribute to and expand the limited knowledge in this area. The findings of study will be of interest to policy makers, educators, marketers, parents and even young people themselves.

1.1. Research background

Statistics show that in 2007, according to the Southeast Asia Mobile Communications and Mobile Data report (cited in Price 2008), Brunei's mobile penetration rate was one of the highest in South-east Asia, at approximately 114 per cent or 0.4 million subscribers in total. Indeed, this figure continues to rise and there is widespread use of mobile phones, particularly among young Bruneians, just as in any other country. According to Han (2009), there is increasing demand for mobile phones among the younger generations. Additionally, mobile phones which boast third-generation (3G) capabilities such as mobile Internet, mobile computing, and mobile chat, among others (e.g. text, call, music and camera or video) are popular among Bruneian teenagers (Han, 2009). What about WhatsApp messaging?

In recent years, what is apparent in Brunei, in relation to the use of WhatsApp messaging, is the increase in circulation of all sorts of information or media contents (e.g. images, videos), regardless of their regulated or unregulated nature. Buntar (2012) reported on the Royal Brunei Police Force's (RBPF) dismissal of a false message which could threaten public order. In addition, Kon (2013) also reported that a scam promotion offering on-the-spot approval of cash loans in the name of a local bank was widely spread via WhatsApp. Another concern involving WhatsApp messaging is the spread of obscene images and videos (Roslan, 2014). According to Roslan (2014), "we thrive on information, be it small or big, important or non-important, but to ostracize someone over WhatsApp?" He also highlighted that although the significant benefit of WhatsApp included ease of communication; it could also destroy an individual's or company's reputation, and create a sense of panic and anxiety to the public. Roslan (2014) warned that people should be more responsible and cautious in relation to the dissemination of information or media content via WhatsApp. In 2013, the Royal Brunei Police Force (RBPF) have warned that the spread of false information which could create chaos and anxiety to the public is an offense and offenders can be charged and penalized under the country's law Section 34 of the Public Order Act, Cap 148 where the penalty is a maximum of three years' imprisonment or a fine of B$3000 (US$2500).

2. Literature review

In general, a number of studies have demonstrated that WhatsApp was widely adopted by individuals as it allowed better accessibility and ease of communication offering real-time messaging, empowerment, sense of belongingness and sociability, enjoyment, quick information-sharing and cost benefits (Bere, 2012; Plana, Gimeno, & Appel, 2013; Church & Oliveira, 2013; Yeboah & Ewur, 2014; Soliman & Salem, 2014; Devi & Tevera, 2014; O'Hara, Massimi, Harper, Rubens & Morris, 2014). Church and Oliveira (2013), in their multi-method study involving 140 individuals (between 20 and 60 year olds) in Spain, found that WhatsApp was commonly adopted for convenience in communication and cost benefits. Similar findings were seen in a study that investigated WhatsApp use and its motivational factors, among 450 college students (between 18 and 55 year olds; including post-graduate students and faculty members) in Riyadh (Soliman & Salem, 2014). Additionally, they also reported that WhatsApp use was also popular for entertainment purposes such as to share jokes or funny messages. On the other hand, O'Hara et al. (2014) investigated WhatsApp use among 20 individuals (between 17 and 49 year olds) in the United Kingdom (UK). They found that WhatsApp messaging was primarily used to 'dwell' with significant others in the virtual space. They also concluded that the effects of WhatsApp use on social relationships included a sense of belongingness, as well as a secured and committed bond. However, some of the major limitations of these studies included sampled age groups were quite diverse and thus the results could not be generalized.

Bere (2012) also investigated the motivational factors that affected WhatsApp use among 118 undergraduates in South Africa. In his study, it was highlighted that a majority of undergraduates preferred ubiquitous learning via WhatsApp messaging, but this was particularly significant among younger and single (unmarried) undergraduates. Meanwhile, Yeboah and Ewur (2014) conducted a study to find out the impacts of WhatsApp use on students' performance in tertiary institutions in Ghana. They concluded that, while the positive impacts included ease of

communications and effective information-sharing, the negative impacts were distraction from studies and completing assignments, damaging language spellings and grammars and lack of focus in lectures. Like Yeboah and Ewur (2014), Plana, Gimeno and Appel (2013) was interested in exploring the benefits and drawbacks of using WhatsApp messaging to reading skills in English as a foreign language (EFL). Their study found that a majority of students reported a high level of confidence and interest in reading English via WhatsApp messages. In relation to how university students use social networking sites, Devi and Tevera (2014) found that both Facebook and WhatsApp were commonly used for academic communication and information sharing. Overall, however, most studies did not investigate the challenges involved with the ease of use and communication via WhatsApp messaging. Thus, drawing on the above studies, this study aimed to investigate not only: (1) the use and effects of WhatsApp messaging among university students; but also; (2) the extent to which WhatsApp messaging is use to disseminate information or media content, regardless of its regulated or unregulated nature.

3. Theoretical framework

The theoretical framework used in this study is the domestication theory. Domestication focuses on the social relationships surrounding information communication technologies (ICTs). It involves a process of understanding the complexity of how ICTs are experienced in everyday life. As ICTs are acquired (consumed) in the public and private spheres, domestication investigates their symbolic meanings, the interactions and negotiations that take place between individuals within the wider social networks (Silverstone & Hirsch, 1994; Haddon, 2004, 2006).

Domestication has been described as 'taming the untamed' (Berker et. al., 2006). It provides valuable insights into how ICTs fit into the structures and routines of individuals' daily lives, those who negotiate their use or non-use of ICTs in association with others within their wider social environment. While it has been criticized for neglecting the social processes of production and some aspects of the technological content (Bakardjieva, 2005), domestication's benefits lie in its emphasis on several points. These include the recognition that technology is evolutionary, doubly articulated as object symbolized and as media with content; the focus on the user (as creative individuals) involving a non-linear, two-way process into how ICTs are integrated into their lives through appropriation (the process where a technology is acquired upon ownership and use by an individual), objectification (how a technology is physically/symbolically, used, displayed or classified), incorporation (how the technology is used, adjusted to an individual's everyday life and routines) and conversion (a process where technologies (meanings and uses) are converted/transformed). As pointed out by Lie and Sorensen (1996, p.2), 'we adopt and adapt technologies, we shape and are shaped by them'. Domestication theory is thus useful to investigate the use and challenges of WhatsApp use by the undergraduates of Universiti Brunei Darussalam.

4. Research methodology

This study employed quantitative based-approaches, which primarily use online questionnaire, distributed randomly among the undergraduates of Universiti Brunei Darussalam (UBD).The questionnaire consisted of thirty-nine (39) questions, which comprises of both closed-ended and open-ended questions. Based on several studies (Haddon, 2004; Hartmann, 2006; Hynes & Rommes, 2006; Walsh, 2009; Smock, Ellison, Lampe, Wohn, 201; Church & Oliveria, 2013; Plana, Gimeno, & Appel, 2013), an online questionnaire was designed and deployed to explore five variables; (1) *demographics or profiles of WhatsApp users:* gender, age group, race and faculty; *(2) appropriation:* the motivational factors to WhatsApp adoption; *(3) incorporation:* the frequency of use or time spent per day, usage types and features, the type of information disseminated; *(4) objectification:* the symbolic meaning of WhatsApp; and (5) *conversion*: the challenges encountered and continuity of WhatsApp use.

According to Wright (2005), due to rapid technological developments, creating and conducting an online survey was less time-consuming. Internet or online-based research surveys also provide an abundant of information for researchers. The advantages of online survey research include access to individuals in far-off places or wider reach, and the availability of possessing collection on an automated data. Online surveys propose many benefits than traditional surveys (Wright, 2005). Nevertheless, there are also disadvantages of online survey research which include server crash or browser freeze in which the respondents possibly become incapable to complete the survey and causing in losing data and low response rates (Matsuo, McIntrye, Tomazic & Katz, 2004).

5. Findings

5.1. Demographics

This study presents the key findings from a total of 158 undergraduates (refer to Table 1), with a majority of them were female (78.98%) and the remaining were male (21.02%). They were aged between 18 and 23 years, with the highest age groups between 21-23 years old (40.76%) and the second highest age groups between 18-20 years old (23.57%). A majority of the undergraduates who participated in the study were from the School of Business and Economics, which accounts for 45.51%, followed by the undergraduates from the Faculty of Arts and Social Science (32.05%). Most of the undergraduates involved in the study are Brunei-Malay and Muslims.

5.2. Appropriation

As evidenced in this study, a total of 156 (98.7%) undergraduates said that they own mobile phones, with a majority of them (57.96%) owning Samsung smartphone in contrast to iPhone. Almost half-of the undergraduates who participated in the study also owns additional technological devices such as the iPad and Samsung Galaxy Tablets. The most popular instant messaging used was WhatsApp at 96%, followed by Viber, Wechat and Line. Interestingly, this study also demonstrated that about 150 (94.9%) undergraduates stated that they still use Short Messaging Service (SMS) on their mobile phones for several times per week at the most.

5.3. Incorporation

This study showed that a majority of the undergraduates use WhatsApp for more than 3 hours per day, which attributed to its ease-of-use, ease of communication, real-time messaging, and inexpensive as well as due to the quick information retrieval and transfer. Most of the current features on WhatsApp that the undergraduates used were sending text messages (98.10%), sending photos (94.94%) and sending information (i.e. news, events, study-related matters (62.03%). This study also demonstrated that an undergraduate student of UBD relies heavily on the use of WhatsApp for quick information retrievals and transfers, particularly in sharing information with friends related to study-matters such as work discussions and assignments. As evidenced in this study, a majority of the undergraduates strongly agreed that WhatsApp was very useful for their group discussions and interactions, with its ability to share long text-messages, videos and images, and its ability to send message only once to group(s), and also the ability to strengthen bonds with family and friends.

This study also illustrated the type of challenges that the undergraduates encountered while using WhatsApp. A majority of them (42.58%) realized that with the use of WhatsApp, there was an increase in expectation from others, or that one must reply messages immediately. Other challenges identified in the study were that the use of WhatsApp could lead to addictive-like behaviors and the exposure of false or unregulated information or media contents. Moreover, some of the undergraduates also agreed that WhatsApp was somewhat disruptive to their study (31.61%). However, interestingly, a majority of the respondents disagreed that the use of WhatsApp was disruptive to their social and physical activities.

An interesting note to highlight in this study was on the undergraduates' information sharing behavior specifically on whether or not they tend to forward or disseminate information relating to news, events, advertisement, or any study-related matters to others. The findings of this study revealed that a majority of the undergraduates (67.54%) do tend to disseminate information only if they believed it to be useful, relevant or true. This supposition was succeeded by 21% of respondents who does not disseminate the information at all. Among the reasons as to why they did not want to transfer information or media contents freely were attributable to them feeling not interested to disseminate, due to privacy concerns and most importantly, they were hesitant to share information that might be unregulated or from an untrusted source. The findings in this study also showed that a majority of the undergraduates disseminated only those related to their study-matters.

5.4. Objectification and conversion

When asked how they perceived or symbolized the WhatsApp messaging tool, the overall results precipitate that a majority of the undergraduates (54.78%) strongly agreed that WhatsApp is just a 'normal communication application' rather than valuing it as something that they would be more attached to, for example as their 'soul-mate' or 'best-friend'. Nevertheless, in light of all the findings in the study, more than half of the undergraduates said that they would still continue to use WhatsApp even if it is no longer free, and they would still consider using it within the next two years.

Table 1. The percentage and frequency of Whatsapp use

i) Demographic	Responses	
Gender : Male : Female	21.02% (33)	78.98% (124)
Age group: 18-20 : 21-23	23.57% (37)	40.76%(64)
Faculty : Faculty of Arts and Social Sciences	32.05% (50)	
: UBD School of Business and Economics	45.51% (71)	
ii) Appropriation		
i) Do you currently use Mobile Instant Messaging (MIM), namely Whatsapp on your mobile phone?	96.82%(152) (Yes)	3.18% (5) (No)
ii) Why do you use Whatsapp (you may tick more than one answer)		
a) Easy-to-use/uder-friendly	92.41%(146)	
b) Easy to communicate	92.41%(146)	
c) Time-saving	69.62%(110)	
d) Saves money	84.18% (133)	
e) Speed of information retrieval and transfer	72.15%(114)	
iii) Incorporation		
i) How many hours you normally spent on using Whatsapp?		
a) 1 - 2 hours per day	27.7% (41)	
b) 3 - 5 hours per day	31.76% (47)	
c) 6 - 7 hours per day	11.49% (17)	
d) Over 8 hours per day	29.05% (43)	
ii) What current features of Whatsapp you mostly use? (you may tick more than one answer)		
a) sending text messages	98.1% (155)	
b) sending photos	94.94%(150)	
c) sending videos	47.47% (75)	
d) sending information (i.e. news, events, etc)	62.03% (98)	
e) sending voice message	41.77% (66)	
iii) If you received the information (i.e. news, events, advertisements, etc), do you forward it to others? (if you tick 'Yes' or 'Sometimes', please proceed to answer question 31, if you tick 'No', please proceed to answer question 32).		
a) Yes (regardless if the information is useful, relevant or believed to be true)	11.46% (18)	
a) No (regardless if the information is useful, relevant or believed to be true)	67.52%(106)	

c) No 21.02% (33)

iv) Please rate the frequency below for each description that maybe of applicable to you with regards to the type of information that you often disseminate/transfer:

Likert-scale %	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
a) news	3.25% (4)	14.63%(18)	32.52%(40)	39.84%(49)	9.76% (12)
b) events	6.5% (8)	7.32% (9)	14.63%(18)	63.41%(78)	8.13% (10)
c) chain messages	62.7% (79)	20.63%(26)	12.7% (16)	2.38% (3)	1.59% (2)
d) Advertisement	24.81% (33)	24.81%(33)	25.56%(34)	21.05%(28)	3.76% (5)
e) study-related matters	1.52% (2)	0.76% (1)	3.79% (5)	39.39%(52)	54.55%(72)
f) real-time location	18.18% (24)	14.39%(19)	47.73%(63)	12.12%(16)	7.58% (10)

v) Please rate the frequency below for each description that mayb of applicable to you with regards to why you feel that you do not want to disseminate/transfer the information (i.e. news, events, advertisements, etc)

Likert-scale %	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
a) Not interested	1.43% (2)	6.43% (9)	21.43%(30)	35% (49)	35.71%(50)
b) For own privacy	0.72% (1)	3.6% (5)	28.78%(40)	35.97%(50)	30.94%(43)
c) unregulated information/content/media	0% (0)	2.88% (4)	17.27%(24)	24.46%(34)	55.4% (77)

iv) Objectification

Please rate the frequency below for each description that maybe applicable to you with regards to how would you symbolize (value) Whatsapp?

Likert-scale %	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
a) My life	21.02% (33)	23.57%(37)	26.75%(42)	24.84%(39)	3.82% (6)
b) My Best friend forever (BFF)	24.36% (38)	25% (39)	27.56%(43)	19.23%(30)	3.85% (6)
e) Just a normal communication application	0% (0)	5.1% (8)	1.91% (3)	38.22%(60)	54.78%(86)

v) Conversion

i) Would you still continue to use Whatsapp if it is no longer free/cheap?	55.06% (87) (Yes)	44.94%(71) (No)
ii) Would you still continue to use Whatsapp in the next 2 years?	93.38%(141) (Yes)	6.62% (10) (No)

iii) Please rate the frequency below for each description that mayb of applicable to you with regards to any challenges that you have encountered while using Whatsapp.

Likert-scale %	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
a) Addictive (i.e. Can't help but to constantly chatting, replying and sharing information/content/media all the time)	10.19% (16)	20.38%(32)	15.29%(24)	38.85%(61)	15.29%(24)
b) Disruptive to my study (i.e. in lectures, doing assignment, revision or discussions)	9.03% (14)	21.29%(33)	21.94%(34)	31.61%(49)	16.13%(25)
c) Disruptive to my physical activity (i.e. sports)	16.67% (26)	42.95%(67)	23.08%(36)	13.46%(21)	3.85% (6)
d) Disruptive from social relationship (i.e. spent less quality time with family, relatives or friends)	13.38% (21)	31.21% 49	19.75%(31)	21.66%(34)	14.01%(22)
e) Has increased the expectation from others (i.e. to reply messages immediately, to disseminate information, etc.)	5.16% (8)	9.03% (14)	20% (31)	42.58%(66)	23.23%(36)

6. Conclusions

With the ease and affordability provided by WhatsApp use, this study revealed how the undergraduates use it as an 'all-in-one' mobile communication tool. The study found that WhatsApp use benefits the undergraduates in terms of discussing and sharing information related to study matters, apart from their everyday communications with families, friends and relatives. Inevitably, the undergraduates also faced critical issues arising from their frequent use of WhatsApp, which includes the need to attend WhatsApp messages immediately, the exposure to false or unregulated information or media contents, mobile connectivity and addictive-like behaviors (e.g. disruptions to their studies). However, this study revealed that the undergraduates are rather responsible and cautious in relation to the highlighted issue of disseminating information or media contents of unregulated nature. Nevertheless, at least to the undergraduates who participated in this study, WhatsApp is here to stay for the next couple of years.

7. Limitations of study and future direction

The most important limitation lies in the fact that the generalizability of this study is limited to the undergraduates of Universiti Brunei Darussalam (UBD). The results should be interpreted with caution as the samples are also not representative of all undergraduates of UBD or Bruneian youths. This study is only a preliminary baseline study of WhatsApp use and effects of use, including the challenges faced by a total of 158 undergraduates. A number of possible future research projects are apparent. First, further research based on a larger sample size of undergraduates concerning their WhatsApp use. Second, further research regarding the use of WhatsApp in disseminating religious knowledge or information among the undergraduates or Bruneian youth would also be crucial.

Acknowledgements

References

Acton, B., & Koum, J. (2014). *WhatsApp blog.* Retrieved from http://blog.whatsapp.com/

Bakardjieva, M. (2005). *Internet Society: The internet in everyday life.* London: Sage Publications.

Bere, A. (2012). A comparative study of student experiences of unquitious learning via mobile devices and learner management systems at a South African university. *Proceedings of the 14th Annual Conference on World Wide Web Applications. Cape Penisula University of Technology, http://www.zaw3.co.za/index.php/ZA-WWW/2012/paper/viewFile/537/160.*

Berker, T., Hartmann, M., Punie, W., & Ward, K. (2006). *Domestication of media and technology.* London: Open University Press.

Buntar, W. (2012, October 2). False message on WhatsApp. *The Brunei Times.* Retrieved from http://www.bt.com.bn/print/299238.

Church, K., & Oliveira, R. d. (2013). What's up with WhatsApp? Comparing mobile instant messaging behaviors with traditional SMS. *MOBILE HCI - Collaboration and Communication*, (pp. 352-361). Munich, Germany.

Devi, T. S., & Tevera, S. (2014). Use of social networking site in the University of Swaziland by the health science students: A Case study. *Jounal of Information Management, 1*(1), 19-26.

Haddon, L. (2004). *Information and communication technologies in everyday life: A concise introduction and research guide*. Oxford: Berg

Haddon, L. (2006). The Contribution of domestication research to in-home computing and media consumption. *The Information Society, 22*(4), 195-203.

Han, F. (2009, April 24). Rising demand for 3G mobile phones. *Brudirect.com.* Retrieved from http://www.brudirect.com/DailyInfo/News/Archive/Apr09/24/nite22.htm

Hartmann, M. (2006). The triple articulation of ICTs. Media as technological objects, symbolic environments and individual texts. In T. Berker, M. Hartmann, W. Punie, & K. Ward (Eds), *Domestication of media and technology* (pp.80-99). London: Open University Press.

Hynes, D., & Rommes, E. (2006). 'Fitting the internet into our lives': IT courses for disadvantaged users. In T. Berker, M. Hartmann, W. Punie, & K. Ward (Eds), *Domestication of media and technology.*(pp.125-142). London: Open University Press.

Kon, J. (2013, July 13). *WhatsApp bank scam debunked. Brudirect.com.* Retrieved from http://www.brudirect.com/national/national/national-headlines/310.

Lie, M., & Sorensen, K. (1996). *Making technologies our own? Domesticating technology into everyday life.* Oslo: Scandinavian University Press

Matsuo, H., McIntyre, K. P., Tomazic, T., & Katz, B. (2004). *The online survey: Its contributions and potential problems.* Retrieved from http://www.amstat.org/sections/srms/Proceedings/y2004/files/Jsm2004-000440.pdf

O'Hara, K., Massimi, M., Harper, R., Rubens, S., & Morris, J. (2014). Everyday dwelling with whatsApp. *Proceedings of the 17ᵗʰ ACM conference on Computer supported cooperative work & social computing* (pp. 1131-1142). ACM, Baltimore, MD, USA.

Plana, M. G.-C., Escofet, M. G., Figueras, I. T., Gimeno, A., Appel, C., & Hopkins, J. (2013). Improving learners' reading skills through instant short messages: a sample study using WhatsApp. *Proceeding of WorldCall 2013-Call:Sustainability and Computer-Assisted Language Learning* (pp.80-84). University of Ulster, Glasgow.

Price, J. (2008, May 8). 7.2Mbps! DST 3G 2 cool 2 blieve – K?. *The Brunei Times*. Retrieved from http://www.bt.com.bn/en/science_technology/2008/05/08/7_2mbps_dst_3g_2_cool_2_b_lieve_k

Roslan, H. (2014, January 30). BLOG: WhatsApp with our sense and sensibility? *The Brunei Times*. Retrieved from http://www.bt.com/bn/print/528929

Silverstone, R., & Hirsch, E. (1994). *Consuming technologies: Media and information in domestic spaces*. London: Routledge.

Smock, A. D., Ellison, N. B., Lampe, C., & Wohn, D. Y. (2011). Facebook as a toolkit: A uses and gratification approach to unbundling feature use. *Computers in Human Behavior*, *27*(6), 2322-2329.

Soliman, D. A., & Salem, M. S. (2014). Investigating intention to use mobile instant messenger: The influence of socialibility, self-expressiveness, and enjoyment. *The Journal of American Academy of Business, Cambridge, 19*(2), 286-293.

Walsh, S.P. (2009). *A Psychosocial approach to understanding young Australians' mobile phone behaviour*. (Doctoral dissertation, Queensland University of Technology, 2009). Retrieved from http://eprints.qut.edu.au/29799/1/Shari_Walsh_Thesis.pdf

Wright, K. B. (2005). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaires authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, *10*(3).

Yeboah, J., & Ewur, G.D. (2014). The impact of whatsApp messenger usage on students performance in Tertiary Institutions in Ghana. *Journal of Education and Practice, 5*(6), 157-164.