

RESEARCH PAPER

**AN INVESTIGATION INTO CYBERLOAFING AMONG
STUDENT-WORKERS**

K. Ayebi-Arthur¹, V. Arhin² and D. B. Aidoo³

¹*Department of Maths & ICT Education, University of Cape Coast, Cape Coast*

²*College of Distance Education, University of Cape Coast, Cape Coast*

³*Institute for Educational Planning and Administration, University of Cape Coast, Cape Coast*

ABSTRACT

Despite the evidence that an increase in cyberloafing can be unfavourable to firms, workers commonly view cyberloafing to be a no-harm activity and believe it does not have a significant impact on performance in an organisation. This study sought to find out if cyberloafing activities existed among student-workers in organisations in Ghana and how it affects their work. A descriptive survey design was employed for the study. The study participants were student-workers enrolled in an MBA programme at a University in Ghana. Responses of 286 sampled participants were used for the analyses. The data analyses for the research questions made use of means and standard deviation. Independence sample t-test was used to test the hypothesis. Results from the study showed that the most cyberloafing activity of participants of the study was Instant messaging. The least cyberloafing activity of participants of the study was Online games. The results also indicated that males do more cyberloafing than females although there was no statistical difference between the sexes. Conclusions drawn from this study have shown that cyberloafing is generally widespread at the office. Organisations need to orient and educate staff on the negative effects of cyberloafing in order not to waste the company's productive time.

Keywords: *Cyberloafing, instant messaging, student-workers*

INTRODUCTION

Internet connectivity has become a norm in most organisations as employees use services such as email and the World Wide Web to enhance their productivity. There are several advantages of using the Internet in organisations which include: improving communications within and out of organisations and increasing access to information. Regardless of the usefulness of the Internet, there are reports of its abuse whereby non-work related use by em-

ployees have become widespread (Lieberman, Seidman, Mckenna and Buffardi, 2011). Pervasive usage of information and communication technologies (ICTs) at the work-place has inadvertently rendered a new form of deviant behaviour termed as cyberloafing (Koay, Soh and Chew, 2017b).

Cyberloafing is an inefficient use of network resources for personal use during work hours which tend to lead in reduction of productivity

in organisations (Chen, Chen and Yang, 2008; Lim, 2002). Lim and Teo (2005) define cyberloafing as the act of employees using their organisations' Internet access for personal purposes during work hours. Examples of cyberloafing as listed by Liberman *et al.* (2011) include: receiving and sending e-mails to friends and family, posting updates on social networking.

Cyberloafing is becoming a concern for employers because increasing access to internet can compete with employees' productivity (Phillips, 2014). Some employees use office hours to conduct personal business such as checking their personal emails, doing non-work-related browsing of the World Wide Web, posting on social media. Discussing ways in which cyberloafing manifests in organisations, Liberman *et al.* (2011), identify Facebooking, Twittering, shopping online, visiting entertainment websites, and downloading software such as videos, music, and games as examples. Thus, (internet misuse) results from using the organisation's resources for other activities not related to the benefit of the organisation.

Cyberloafing can lead to negative consequences for the organization: accrued financial bearing (Jandaghi, Alvani, Zarei - Matin and Fakheri - Kozekanan, 2015); reduced productivity levels and exposure to liability risks (Lichtash, 2004). Cyberloafing could be a gain or drain on work. Coker (2011) reported in their study that cyberloafing was not harmful or immoral as it can constitute a boredom coping strategy as it provides short breaks during work and increases workers ability to perform on the job. Page (2015) suggests positive effects from his study that, apart from offering a means of coping and a new means of routine resistance in the work, cyberloafing may also increase productivity and digital literacy among workers in particular teachers'. Another study conducted by Lim and Chen (2012) on impact of cyberloafing on employees' emotions and work established that some form of cyberloafing at the workplace was acceptable as it has a positive impact on employees' emotions. This indicates that cyberloafing allowed to employees have some limit; as too much allowance of it could produce negative impact on work. Moody and Siponen

(2013) argued that cyberloafing could lead to bandwidth degradation and network congestion unnecessarily.

The aim of this study was to investigate whether cyberloafing has a positive or negative effect on employees work with gender difference as the fulcrum. The study contributes to the ongoing debate on the positive and negative implications of cyberloafing by employees in organisations particularly academic institutions.

LITERATURE REVIEW

LaPlante (1997) reported in a study to assess websites access and use at the work place that (90%) of all websites accessed at the work were not work-related but for other personal interest. Anandarajan, Simmers and Igbaria (2000) reported from their research that one billion USD per annum in labour costs is lost by organisations on internet usage for non-work-related activities. Blanchard and Henle (2008) in their study on different forms of cyberloafing at work, indicated that cyberloafing could be a minor in which case could be tolerated, but serious cyberloafing on the other hand, could be a disadvantage to the organisation.

Cyberloafing action by employees could be triggered by a number of actions such as poor working conditions, boredom, decreased levels of job involvement (Pindek, Krajcevska and Spector, 2018); lack of commitment to the organisations by employees (Liberman *et al.*, 2011) and lack of proper laid down policies regarding internet usage (Garrett and Danziger, 2008; Mahantanakoon, Anandarajan and Igbaria, 2004). Cyberloafing could be concluded, to have both a negative or positive effect on work.

Some scholars are of the view that cyberloafing activities are phenomenon of gender (Garrett and Danziger, 2008). The socio-cultural background of a person (male or female) could also spark the cyberloafing intentions and hence behaviour. Research on counterproductive behaviour suggests that men were more likely to engage in technology-oriented production deviance as compared to women (Garrett and Danziger, 2008). Similarly, Vitak, Crouse, and LaRose (2011) found age and gender to be correlated with cyberloafing activity. In addition,

Lim and Chen (2012) reported that men are likely to find cyberloafing as aids to meet their work loads. Women, however, perceive cyberloafing to be a fruitless activity which hinders work, given their high level of anxiety and inability to take benefit of valuable online information. Stavropoulos, Alexandraki, and Motti-Stefanidi (2013) also found sex differences in the use of internet. They reported that males were at higher risk of Internet Abuse and were more likely to experience Internet Flow state and Telepresence. In addition, Bonanno and Kommers (2008) opine that males have more positive and involving attitudes towards Internet technologies than females. This reviewed showed that cyberloafing exists in organisations. However, there is little research on cyberloafing in Ghana. This study sought to find out if cyberloafing activities existed among workers in organisations in Ghana and to find out the perception of the workers on cyberloafing.

The study specifically investigates into:

What cyberloafing activities do student-workers engage in; if a student-worker sex influence cyberloafing at work' and what are the effects of student-workers cyberloafing on work related-activities? Also, a hypothesis: There is no significant difference in cyberloafing activities of male and female student-workers was formulated to guide the study.

Social exchange theory was employed to explain interactions between employees and organisations. Although there are many variations of social exchange, most modern models in organizational behaviour share a few common features: (1) an actor's initial treatment toward a target individual, (2) a target's reciprocal responses (both attitudinal and behaviour) to the action, and (3) relationship formation (Cropanzano, Anthony, Daniel and Hall, 2017). According to the theory, when employees are dissatisfied with the fairness of procedures and interpersonal treatment, they are more likely to exhibit misconduct and engage in counterproductive behaviours. The more engaged employees are to their work, the greater amounts of cognitive, emotional, and physical resources they will devote to perform their job duties.

When the organisation fails to provide economic or emotional resources, the employees are more likely to withdraw and disengage themselves from their roles (Saks, 2006).

METHODOLOGY

A quantitative descriptive survey design was used for this study (Creswell, 2012) because the research sought to find out if cyberloafing activities existed among workers in organisations and how these activities impacted on the work of the participants of the study. The population for the study was 676 students enrolled in MBA programme studying in distance mode at a University in Ghana. The participants reported to the study centres every fortnight. A multistage sampling approach was used to sample participants for the study. First, the purposive sampling technique was adopted to select five regions where MBA programmes are offered by the University. In each of the study centres selected, students who were not working were exempted from the study. This was done using the students class list and those who were not working were cross out. At the end, a total of 300 (168 males and 132 females) out of 1,310 student-workers were recruited and purposively sampled for the study.

To explore cyberloafing attitudes among workers, a self-developed instrument with some items adapted from Lim and Chen (2012) work was used to collect data for the study.. The instrument was in two parts. The first part consisted of 13 cyberloafing activities. The second part consisted of items that sought to measure the impact of cyberloafing on the respondents.

All the items were place under a 5-point Likert scale. The instrument was pre-tested in a Centre that was not sampled for the study. Cronbach alpha reliability calculated for the two parts were 0.86 and 0.88 respectively.

The instrument was administered to the participants by the centre coordinators in the five centres across the country. All ethical consideration governing the conduct of a research were strictly adhered to. The purpose of the study was explained to the participants by the study centre coordinators.

Those who were not able to complete the in-

strument were allowed to take them home and returned the instrument at the next meeting. The completed instruments were then returned to the researchers by the study centre coordinators after a period of three weeks. Responses from the questionnaire administered were cross-checked and cleaned to ensure that no mistakes existed in the responses. After the cleansing 286 (159 males and 127 females) responses translating into 95.3 % was deemed good and used for the analyses.

The five options of the questionnaire were quantitatively coded. Options to each item on the instrument were assigned values of 1 – 5, where, 1= Never; 2 = Seldom; 3 = Sometimes; 4 = Often and 5 = Always. Negative-worded items were reversed when coding for analysis. A mean of 3.0 or less depicts less cyberloafing activities and its impact on work while a mean of 4.0 and above implies a high cyberloafing activity and its impact on work in this study. Quantitative data analyses comprising means and standard deviation were used to analyse the research questions. In addition, t-test was conducted using Statistical Package for the Social Sciences (SPSS version 22) software to test the hypothesis.

RESULTS AND DISCUSSION

The results of the study have been presented according to research questions and hypothesis. The first research question sought to find out cyberloafing activities that student-workers engage in. The calculated means and standard deviations are presented in Table 1.

From the result in Table 1, the highest cyberloafing activity of the participants was Instant messaging: WhatsApp/FaceBook/Twitter (M = 3.62, SD =1.163). This was followed by check personal email (M= 3.33, SD = 1.160) and receive personal email (M= 3.26, SD = 1.158). The least cyberloafing activity was online games (M = 1.90, SD = 1.042). This was followed by online shopping (Mean = 2.19, SD = 1.140).

The values confirm that workers cyber-loaf when in the office. Frequent checking of personal mail may be a sign that staff are bored at work. A more challenging work schedule may be created to keep staff engaged and on task at work. However, high levels of job stress will lead to high levels of cyberloafing behaviour (Koay *et al.*, 2017b). An organisational atmosphere created by management that supports

Table 1: Cyberloafing activities of student-workers

Cyberloafing activity	n	Mean	Std. Deviation
Online games	286	1.90	1.042
Look for employment	286	2.82	1.173
Online shopping	286	2.19	1.140
Download non-work-related information	286	2.59	1.048
Entertainment website	286	2.38	1.101
Sports website	286	2.36	1.301
Instant messaging (WhatsApp/FaceBook/Twitter)	286	3.62	1.163
Send personal email	286	3.19	1.129
Check personal email	286	3.33	1.160
News websites	286	3.05	1.134
Non-work-related websites	286	2.60	1.077
Receive personal email	286	3.26	1.158
Time taken to switch from cyberloafing to work	286	2.44	1.209

staff should be created to ensure that employees sense their work as significant and makes an impact in the organisation (Anandarajan *et al.*, 2000; LaPlante, 1997). Staff not using their time efficiently is a drain on an organisations' resources (Chen *et al.*, 2008; Lim, 2002).

Research question two sought to find out if the sex of a student-worker influenced cyberloafing at work. Fig. 1 shows the findings on the influence of the sex of the respondents and their cyberloafing activities. Analysis in Fig. 1 shows the mean of the respondents' activities

in relation to their sex. In Fig. 1, the mean of the males in all activities were higher than that of the females. This indicates that males do more cyberloafing than females thus confirming findings of Lim and Chen (2012) that there are sex differences in cyberloafing whereby males tend to do more cyberloafing than females. Women are inclined that cyberloafing has an undesirable influence on their labour.

Research question three sought to find out the effect of student-workers cyberloafing on work related-activities. Table 2 shows the findings

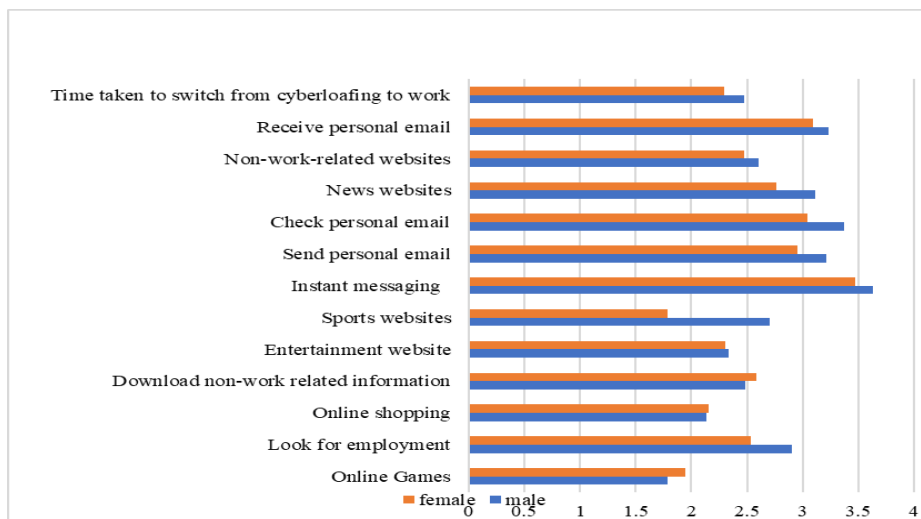


Fig. 1: Influence of respondents' sex on cyberloafing activities

on the effects of participants' cyberloafing activities on work.

The effect of participants cyberloafing on work-related activities was midway (M = 2.42, SD = 0.79). The participants of the study may not have been cyberloafing because they use their extra time for studying. Thus, they may be going to websites to look for information on their studies thus may not be considering the activities as cyberloafing. Coker (2011) believes cyberloafing can replenish attentional resources by reducing vigilance decrement, replenishes

attentional resources, resulting in greater sustained task vigilance when compared to a break condition where respondents remained stationary and did nothing thus perpetrators of cyberloafing should not be punished. Inferences from the data analysed support the suggestion that there must be training in organisations of the effects on cyberloafing and explain how best to use the internet for work and personal use.

To test the hypothesis; relationship between the sex of participants and their cyberloafing activ-

Table 2: Effects of participants cyberloafing activities on work

Activity	N	Mean	Std. Deviation
Cyberloafing at workplace is acceptable	286	1.99	1.103
Cyberloafing makes me extend work deadline	286	2.02	1.127
Cyberloafing makes me leave office completing less work	286	1.86	1.123
Cyberloafing makes me unable to meet deadlines for work	286	1.84	1.163
Cyberloafing distracts me from my work	286	1.97	1.153
Cyberloafing takes up time which I would rather spend on work	286	2.09	1.118
Cyberloafing makes me spend less time doing work	286	2.08	1.192
Cyberloafing makes it difficult to fulfill my work obligations	286	1.87	1.137
Cyberloafing makes me unable to meet deadlines for work	286	1.78	1.079
Cyberloafing makes me a more interesting person at work	286	2.49	1.219
Cyberloafing helps me to deal with practical issues at work	286	2.94	1.195
Cyberloafing help in dealing with problems at work	286	2.90	1.189
Cyberloafing makes work more interesting	286	2.92	1.185
Cyberloafing helps me to deal with personal issues at work	286	2.71	1.223
Overall effect	286	2.42	1.247

Table 3: T-Test Showing difference in cyberloafing activities of male and female student-workers

Levene's Test for Equality of Variances				t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	4.912	.027	-.235	284	.814	-.01193	.05074	-.11180	.08793
Equal variances not assumed			-.231	246.680	.818	-.01193	.05170	-.11376	.08989

ities, an independent sample t-test was conducted to investigate if there is a significant difference in cyberloafing activities of male and female student-workers. The result is presented in Table 3.

The results in Table 3 indicate that there is no statistically significant difference in cyberloafing activities for males ($M = 2.88$, $SD = .465$) and females; ($M = 2.86$, $SD = .393$), $t(246.68) = -.231$, $p = .818$). The results validate the inferences made in second research question that males tend to do more cyberloafing than females. The results validate Lim and Chen (2012) findings that there are significant gender difference in the perceived impact of cyberloafing on work. This finding also correlates with that of Garrett and Danziger (2008); Vitak, Crouse, and LaRose (2011) that there are gender differences in cyberloafing and that males tend to do more cyberloafing than females.

Implications of cyber-loafing on organisations

For any researcher, one question of interest is the “and so what question?”. Why should people be interested in the findings of a study? The organisational implications of cyberloafing can include brief staff diversion to more grave consequences such as drain on the resources of an organisation. In addition, cyberloafing can result in inadequate use of network resources leading to slower network performance. Electronic monitoring mechanisms that either track or deny access to sites along with monitoring emails reduced cyberloafing behaviours of employees at work (Chen *et al.*, 2008; Ugrin, Pearson and Odom, 2008). However, monitoring systems have both monetary costs and costs of reduced employee morale and job satisfaction (Ugrin *et al.*, 2008). As noted by Beugre and Kim (2006) to reduce the negative effects of cyberloafing as well as maintaining the positive ones, managers should develop and implement clear policies related to the use of the Internet at work. Cyberloafing has implications on security of a network as staff may download viruses and other malware on computers leading to Cybercrime such as Wanna cry Ransomware that infected over 300,000 systems in over 150 countries in May 12, 2017. Further, since the study participants are students, there is the need to educate students on

how to use the internet in order to minimise if not to avoid cyberloafing.

CONCLUSION AND FUTURE RESEARCH

Findings from this study have shown that cyberloafing is generally widespread at the office. Staff especially males tend to do more cyberloafing than females at work although there is not statically different. Cyberloafing can be minimised at the office by deploying a technology-prone solution using firewalls to block access to non-essential access to the internet. Staff may also be educated on the negative effects of cyberloafing in an organisation.

Future research should focus on personality traits and work ethics that tend to influence cyber-loafing. In addition, further research should seek to find if technological infrastructure has an effect on cyber-loafing.

Anandarajan, M., Simmers, C. and Igbaria, M. (2000). An exploratory investigation of the antecedents and impact of internet usage: an individual perspective. *Behaviour and Information Technology*, 19 (1): 69-85.

Beugre, C. D. and Kim, D. (2006). Cyberloafing: Vice or Virtue? In M. Khosrow-Pour (Ed.), *Emerging Trends and Challenges in Information Technology Management*, 1 (2): 834-835. Pennsylvania: Idea Group Publishing

Chen, J. V., Chen, C. C. and Yang, H.-H. (2008). An empirical evaluation of key factors contributing to internet abuse in the workplace. *Industrial Management and Data Systems*, 108 (1): 87-106.

Coker, B. L. (2011). Freedom to surf: the positive effects of workplace Internet leisure browsing. *New Technology, Work and Employment*, 26 (3): 238-247.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative research* (4 ed.). Boston, MA: Pearson Education, Incorporated.

Garrett, R. K. and Danziger, J. N. (2008). Disaffection or expected outcomes: Understand-

- ing personal Internet use during work. *Journal of Computer-Mediated Communication*, 13 (4): 937-958.
- Jandaghi, G., Alvani, S. M., Zarei-Matin, H. and Fakheri-Kozekanan, S. (2015). Cyberloafing management in organizations. *Iranian Journal of Management Studies*, 8(3): 335-349.
- Koay, K. Y., Soh, P. C.-H. and Chew, K. W. (2017a). Antecedents and consequences of cyberloafing: Evidence from the Malaysian ICT industry. *First Monday*, 22(3): 1-16. <http://dx.doi.org/10.5210/fm.v22i13.7302>
- Koay, K. Y., Soh, P. C.-H. and Chew, K. W. (2017b). Do employees' private demands lead to cyberloafing? The mediating role of job stress. *Management Research Review*, 40 (9): 1025-1038.
- LaPlante, A. (1997). Start small think infinite. *Computerworld*, 33: 24-330.
- Liberman, B., Seidman, G., Mckenna, K. Y. and Buffardi, L. E. (2011). Employee job attitudes and organizational characteristics as predictors of cyberloafing. *Computers in Human Behavior*, 27(6): 2192-2199.
- Lim, V. K. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior*, 23(5): 675-694. <http://dx.doi:10.1002/job.161>. Accessed on 20/11/2020
- Lim, V. K. and Chen, D. J. (2012). Cyberloafing at the workplace: gain or drain on work? *Behaviour and Information Technology*, 31 (4): 343-353.
- Luo, X. and Liao, Q. (2007). Awareness education as the key to ransomware prevention. *Information Systems Security*, 16(4): 195-202.
- Mahatanankoon, P., Anandarajan, M. and Igarbaria, M. (2004). Development of a measure of personal web usage in the workplace. *Cyber Psychology and Behavior*, 7(1): 93-104.
- Moody, G. D. and Siponen, M. (2013). Using the theory of interpersonal behavior to explain non-work-related personal use of the Internet at work. *Information and Management*, 50(6): 322-335.
- Page, D. (2015). Teachers' personal web use at work. *Behaviour and Information Technology*, 34(5): 443-453.
- Phillips, J. G. (2014). The psychology of Internet use and misuse. *The Internet and workplace transformation*, Routledge. Pp 51-72 .
- Pindek, S., Krajcevska, A. and Spector, P. E. (2018). Cyberloafing as a coping mechanism: Dealing with workplace boredom. *Computers in Human Behavior*, 86, 147-152.
- Ruane, J. M. (2011). *Essentials of Research Methods*. Malden, MA: Massachusetts: Blackwell.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7): 600-619. doi:doi:10.1108/02683940610690169. Accessed on 04/11/2020
- Sharma, S. K. and Gupta, J. N. (2004). Improving workers' productivity and reducing Internet abuse. *Journal of Computer Information Systems*, 44 (2): 74-78.
- Singal, K. and Chhillar, P. (2017). Ransomware -worldwide cyber attacker. *International Journal of Advanced Research and Development*, 2 (5): 324-329.
- Stavropoulos, V., Alexandraki, K. and Motti-Stefanidi, F. (2013). Flow and telepresence contributing to Internet abuse: Differences according to gender and age. *Computers in Human Behavior*, 29(5): 1941-1948.
- Trochim, W. M. (2006). *The Research Methods Knowledge Base* (2nd ed.). Cincinnati, OH: Atomic Dog Publishing.
- Ugrin, J. C., Pearson, J. M. and Nickle, S. M. (2018). An Examination of the Relationship between Culture and Cyberloafing Using the Hofstede Model. *Journal of Internet Commerce*, 17(1): 46-63.

- Ugrin, J. C., Pearson, J. M. and Odom, M. D. (2008). Cyber-slacking: Self-control, prior behavior and the impact of deterrence measures. *Review of Business Information Systems*, 12 (1): 75-88.
- Vitak, J., Crouse, J. and LaRose, R. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 27(5): 1751-1759.
- Zoghbi-Manrique-de-Lara, P. (2012). Reconsidering the boundaries of the cyberloafing activity: the case of a university. *Behaviour and Information Technology*, 31 (5): 469-479.