Cyberloafing at the workplace: gain or drain on work?

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This study examined the impact of cyberloafing on employees’ emotion and work. We also examined gender differences in employees’ perception towards cyberloafing. In general, respondents felt that some form of cyberloafing at work was acceptable. Men were also more likely to report that cyberloafing has a positive impact on work compared to women. As well, our findings suggest that browsing activities have a positive impact on employees’ emotion while emailing activities have a negative impact. Results of our study provide useful insights for researchers and managers in understanding employees’ attitudes towards cyberloafing, and how cyberloafing can result in gain or drain in employees’ work productivity.

Keywords: cyberloafing; Internet; gender; work; positive and negative emotion

1. Introduction

In recent years, abuse of company’s Internet resources by employees has received a considerable amount of attention among organisational scholars. The term cyberslacking or cyberloafing has been used to describe voluntary acts of employees using their companies’ Internet access for non-work-related purposes during working hours (Lim 2002). Scholars generally conceptualised cyberloafing as a form of workplace production deviance (e.g. Lim 2002, Lim and Teo 2005). This is because these cyber activities (browsing and emailing) which are conducted at the workplace during work time constitute an unproductive use of time and detract employees from completing their work demands. Earlier studies consistently suggested that cyberloafing is prevalent and is a perennial cause of concern for many companies (Lim et al. 2002).

A survey conducted in 2005 by WebSense.com (www.websense.com), an Internet monitoring company, revealed that ~61% of American employees engaged in cyberloafing of some form. More recently, the Web@Work survey conducted by Websense.com in 2006 found that the average American employee spent about 24% of his working hours on cyberloafing activities. This puts the average amount of time spent on non-work related Internet activities at ~10 h per employee per week. Anecdotal evidence from Fox (2007) suggested that some employees spent as many as 5–6 h a day surfing the Internet at work. The approximate number of American employees who cyberloaf at work stood at 34 million, leading to productivity time lost totalling ~200.6 million hours per week (Debt Cubed 2006). Similarly, anecdotal evidence showed that employees in United Kingdom spent about 40% of their time cyberloafing (Amble 2004) and this cost UK businesses about £154 million a year (Hallett 2002).

Although companies are concerned with employees’ productivity loss associated with cyberloafing activities, some scholars have noted that cyberloafing can serve as a palliative coping strategy against negative workplace experiences such as stress (e.g. Stanton 2002, Oravec 2002, 2004, Anandarajan and Simmers 2005). This is especially important as employees today are keeping longer hours at work and are likely to suffer negative effects of stress and burnout (Maslach and Leiter 1997). Thus, it is imperative for scholars to examine how and when cyberloafing can have a positive effect on work so that its potential benefits can be harnessed.

This study is an initial attempt to provide a preliminary examination on the impact of cyberloafing on employees’ work and emotions. In this study, we also examined if men engaged in different types of cyberloafing activities from women and if there is a gender difference in the time taken to switch from cyberloafing to work. The results of our study are instructive for organisations in their efforts to understand the impact of different types of cyberloafing behaviours on individuals and work.

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2. Research hypotheses

2.1. Gender differences in cyberloafing

An increasingly popular area of research is the digital divide between men and women (Hargittai and Shafer 2006). Although some studies (e.g. Ono and Zavodny 2003) have found that the gender gap in Internet usage has decreased, there is still substantial gender differences in the confidence level of Internet use and usage pattern (e.g. Jackson et al. 2001, Broos 2005). Consistently, men were found to be more confident in Internet usage and were more likely to use the Internet for entertainment and leisure purposes (e.g. Weiser 2000, Jackson et al. 2001, Hargittai and Shafer 2006). Women, on the other hand, were less likely to use the Internet because they were less confident about navigating the web and were more likely to possess negative attitudes towards Internet use (e.g. Schumacher and Morahan-Martin 2001, Broos 2005, Hargittai and Shafer 2006).

Given the opportunity to cyberloaf and their efficacy in internet use, we predict that men will cyberloaf more than women.

H1: Men are more likely to cyberloaf at work compared to women.

2.2. Gender differences in impact of cyberloafing on work

Research suggests that cyberloafing provides an effective buffer against work stress (Oravec 2002, 2004, Henle and Blanchard 2008). In this sense, cyberloafing functions as an ‘office toy’ that offers employees temporary respite from work demands (Anandarajan and Simmers 2005). Earlier studies have shown that taking periodic breaks from work are important as these breaks allow employees to recharge their energy level and are crucial for improving work performance (e.g. Sonnentag 2003). By allowing employees to take a break from work, cyberloafing is likely to have a positive impact on work performance.

Although cyberloafing is likely to have a positive impact on employees’ performance, we predict that there will be gender differences in this impact. Studies found that individuals with low confidence and high anxiety in Internet usage will engage in less Internet use and perceive the Internet to be less useful than individuals with high confidence and low anxiety (Broos 2005, Hargittai and Shafer 2006). Since women are less confident with the Internet, it is plausible that they perceive cyberloafing to interfere with their work demands. This is because when women cyberloaf, they will experience higher level of uncertainty and are less able to make use of useful information they come across (Hargittai and Shafer 2006). Given the high level of anxiety and inability to take advantage of useful online information, women will perceive cyberloafing to be an unproductive activity which interferes with work.

On the other hand, men are likely to find cyberloafing facilitative in aiding them to meet their work demands. Research suggested that men are more efficacious in Internet usage and are able to apply knowledge gleaned from Internet use to their daily life (e.g. Jackson et al. 2001, Hargittai and Shafer 2006). Given the high level of confidence and comfort with Internet use, men are like to perceive cyberloafing as enjoyable and are able to make use of information that they come across to aid them in their work processes. Thus, we posit that:

H2: Women perceive cyberloafing to interfere with work while men perceive cyberloafing to facilitate work.

2.3. Impact of cyberloafing on employees’ emotion

Although cyberloafing may have a positive impact on employees, not all cyberloafing activities will yield the same positive outcomes. Research on emailing suggested that it negatively affects employees’ work and emotions (Macklem 2006). This is because personal resources such as energy and attention are required in responding to emails. This reduces the amount of resources available for other work demands (Goode 1960). The reduction of personal resources is likely to lead to negative affect. Further, emailing is one of the major culprits that distract employees from their work (Fallows 2002, Macklem 2006). Studies have shown that 28% of employees surveyed found emails to be distracting (Fallows 2002) and 40% did not return to their original task after emailing (Macklem 2006). Consistent with these findings, we argue that the distraction brought about by emailing triggers negative affect.

On the other hand, browsing the web generates positive affect. Research found that surfing the net while at work is generally a pleasurable activity (Stanton 2002). This is because surfing the net allows employees to temporarily take their mind off work (Simmers et al. 2008). In this sense, browsing is a palliative coping strategy for negative workplace experiences by allowing employees to ‘zone out’. Thus, when employees surf the web, they are likely to feel energised and experience positive affect. Hence we predict that:

H3a: Emailing is positively related to negative affect.
H3b: Browsing is positively related to positive affect.
2.4. Time taken to switch from cyberloafing to work
Research found that women who went online engaged in more online relationship building activities than men (Jackson et al. 2001, Thayer and Ray 2006) and preferred an interactive and synchronous online experience (Sanchez-Franco 2006). These activities which are targeted at connectivity and relationship building require more attention and focused energy. As these online activities require more energy and attention, a greater amount of decompression is required and the transition from cyberloafing to work would take a longer time for women. Thus, we predict that compared to men, women will take a longer time to switch from cyberloafing to work.

H4: Compared to men, women will take a longer time to switch from cyberloafing to work.

3. Method and respondents
Data for this study were obtained through the use of mail survey. Prior to the actual survey administration, a pre-test was conducted to elicit feedback regarding the clarity of the instructions and items in the survey instruments, as well as the overall presentation of the survey. Respondents were selected from the alumni list of a large university in Asia. A package containing the questionnaire and a cover letter describing the purpose of our study was sent to 500 respondents. We requested respondents to return the completed survey in the stamped envelopes provided. A total of 191 completed surveys were collected, yielding a response rate of 38%. Men comprised 34% of our respondents. All respondents have at least a bachelor degree. The average age was ~28 years old (SD = 6.70), and their average working experience was 4.5 years (SD = 6.56 years). About 80% of the respondents were not married at the time of the survey.

3.1. Measures
3.1.1. Prevalence of browsing and emailing activities
These variables were assessed with the scale developed by Lim and Teo (2005). One item (‘visiting adult websites’) was removed due to poor factor loadings. The respondents were instructed to rate on a five point scale on how often they engage in cyberloafing activities during work. Items were anchored from (1) Never to (5) Constantly. Browsing activities comprised nine items (α = 0.76). Sample items include ‘Visit news websites’ and ‘Visit sports websites’. Emailing activities comprised three items (α = 0.84). Sample items include ‘Check non-work-related email’ and ‘Send non-work-related email’.

3.1.2. Perceived seriousness of browsing and emailing activities
These variables were assessed with the scale developed by Lim and Teo (2005). The respondents were asked to indicate the extent to which browsing and emailing would result in serious negative consequences for the organisation. Items were anchored from (1) Not at all serious to (5) Most serious. Perceived seriousness of browsing activities comprised nine items (α = 0.85). Sample items include ‘Visit news websites’ and ‘Visit sports websites’. Perceived seriousness of emailing activities comprised three items (α = 0.93).

3.1.3. Positive affect and negative affect
Positive affect and negative affect were assessed with 20 items from Positive Affectivity and Negative Affectivity Scale developed by Watson et al. (1988). Watson et al. (1988) refer to positive affect as the emotion evident when a person is active, elated, enthusiastic or excited. It was measured with 10 items (α = 0.85). The sample items include: ‘Interested’, ‘Excited’, ‘Alert’ and ‘Active’. Negative affect refers to a state of being distressed, fearful, hostile or jittery. It was measured with 10 items (α = 0.89). Sample items include: ‘Distressed’, ‘Guilty’, ‘Scared’ and ‘Afraid’. The respondents were asked to indicate to what extent they experience positive and negative affect after they have engaged in cyberloafing activities. All items were anchored on a five-point Likert scale ranging from (1) Not at all to (5) Very much.

3.1.4. Work conflict and work facilitation
These variables were assessed with items adapted from Butler (2007). Wordings in the items were modified to suit the cyberloafing context. Work conflict subscale comprised seven items (α = 0.96). A sample item includes ‘Engaging in non-work-related online activities at work makes it difficult for me to deal with practical issues at work’. Work facilitation subscale comprised six items (α = 0.93). A sample item includes ‘Engaging in non-work-related online activities at work helps me deal with practical issues at work’. Items were anchored from (1) Strongly disagree to (7) Strongly agree.

4. Results
Table 1 shows the correlations among variables examined in this study. The results of correlational
analyses revealed that the variables in our study are related in the expected direction.

4.1. Gender differences in cyberloafing

Findings showed that men were more likely to cyberloaf compared to women. Men and women also differed significantly in the amount of time they spent on cyberloafing at the workplace. Men reported spending slightly over an hour (61 min) a day on cyberloafing at work, while women reported that they spent about 46 min. The respondents were also asked to indicate whether they felt that it was appropriate for them to use their workplace Internet access for personal purposes during working hours. About 97% of men and 85% of women reported that it was acceptable for employees to cyberloaf at the workplace.

In general, our findings suggested that men cyberloafed more frequently and for longer duration than women. These findings are consistent with results of prior studies which found that men were more likely to engage in Internet activities and for longer periods of time (e.g. Teo and Lim 2000, Ono and Zavodny 2003). A recent survey conducted by the PEW Internet and American Life Project also found that although women are catching up with men in Internet usage, men are more intense Internet users compared to women. That is to say, wired men were more likely to go online at least several times a day compared to wired women (Fallows 2005). Thus, Hypothesis 1 is supported.

In addition, we also investigated whether men and women engaged in different kinds of cyberloafing activities. The findings are summarised in Figure 1.

Although results indicated that men were more likely to use their company’s Internet access to cyberloaf, both wired men and women were equally unlikely to look for employment online and engage in online games. One plausible explanation is that respondents perceived these activities as having serious negative consequences for themselves and their organisations (refer to Section 4.5.2). Research found that employees are less likely to engage in cyberloafing activities that they perceive to have serious negative consequences for their organisation and hurt their personal interest (e.g. Lim and Teo 2005, Blanchard and Henle 2008). This is because these activities will affect their current job if their companies come to know that they have been looking for alternative employment or are playing games during office hours.

4.2. Gender differences in impact of cyberloafing on work

Our findings also revealed that cyberloafing generally has a positive impact on work. Figure 2 shows that about 75% of respondents agreed with the statement that ‘cyberloafing helps make work more interesting’, and 57% reported that engaging in cyberloafing help them deal with practical issues and personal issues. In addition, 52% of respondents agreed with the statement that ‘cyberloafing makes them a better and more interesting worker’ and 49% indicated that cyberloafing help them deal with problems they encounter at work.

The results of our study are also noteworthy in that they revealed a significant gender difference in the perceived impact of cyberloafing on work. Women tend to feel that cyberloafing has a negative impact on their work (Women’s mean = 3.39 vs. Men’s mean = 2.59, t (189) = 2.53, p < 0.01) whereas men reported that cyberloafing has a positive impact on their work (Women’s mean = 4.20 vs. Men’s mean = 4.77, t (189) = -3.44, p < 0.01). A summary of these findings are shown in Figure 3.
Figure 3 showed that women reported higher means on the items ‘cyberloafing makes me extend work deadline’, ‘makes me leave office completing less work’, ‘distracts me from work’ and ‘takes up time which I would rather spend on work’ compared to men. When compared with women, men reported that cyberloafing had a positive effect on their work. Specifically, men felt that cyberloafing makes work more interesting (Mean = 5.49), makes them a better worker (Mean = 4.95) and help them deal with practical issues at work (Mean = 4.92). Thus, Hypothesis 2, which predicts that women perceive cyberloafing to interfere with work, is supported.

4.3. Impact of cyberloafing on employees’ emotion
We examined if the different types of online activities have a different impact on respondents’ emotion. The results of regression analyses showed that emailing activities were positive and significantly related to negative affect (β = 0.16*, p < 0.05) while browsing activities were not significantly related (β = 0.08, p = n.s.). The respondents who engaged in emailing activities were more likely to report negative affect compared to those who reported engaging in browsing activities. Browsing activities, on the other hand, were positively and significantly related to positive affect (β = 0.17*, p < 0.05) while emailing activities were not significantly related (β = 0.03, n.s.). Thus, Hypotheses 3a and 3b are supported.

4.4. Time taken to switch from cyberloafing to work
We were also interested in examining the amount of time respondents required to switch from one activity to another. When asked how much time they required to switch from cyberloafing to work, respondents reported that they would need about 8 min to switch back to work after engaging in cyberloafing activities. Interestingly, we found a significant gender difference in the amount of time taken to switch from one activity to another. Our findings showed that men took 4 min while women took 10 min to switch from cyberloafing to work (t (189) = -2.24, p < 0.05). Thus Hypothesis 4 is supported.

4.5. Additional analyses
4.5.1. How much cyberloafing is acceptable?
We asked respondents how much cyberloafing at the workplace was acceptable. They felt that cyberloafing at work was permissible insofar as it did not exceed 1 h and 15 min per day. Respondents also reported that
they spent an average of 51 min per day at work cyberloafing. This was slightly more than the finding of an earlier study conducted locally in 2006 which showed that respondents spent ~38 min per day cyberloafing (The Straits Times 2006). The respondents' profile (job tenure and internet usage) in the earlier study is comparable to that in this present study. As well, the industries from which the samples are drawn are also similar.

Interestingly, results from our study indicated that on average, employees today are spending more time cyberloafing compared to their counterparts 3 years ago. One plausible reason for this is that workplace Internet penetration, specifically, broadband Internet connection among local companies has grown approximately by 5–8% from 2006 to 2007. In addition, the number of local employees using computer at work has increased in the last couple of years (IDA 2008). These figures suggested that employees today have easier and faster access to online applications compared with their counterparts just 3 years ago. The faster Internet access speed presents an attractive reason for employees to cyberloaf as many online applications which previously required extensive loading time can now be accessed more quickly. Thus, it is plausible that employees today are more likely to spend time on non-work-related Internet activities as the fast Internet connection not only makes it easier

Figure 2. Impact of cyberloafing on work.
for them to cyberloaf, but also make cyberloafing a less frustrating and more enjoyable experience. We do acknowledge that both the previous and current studies are cross sectional in nature and the data were self reported. As such, our results are not conclusive. Nonetheless, these results provide us with an interesting glimpse of how the Internet has affected how people spent their time at work.

4.5.2. Prevalence and seriousness of cyberloafing activities

Figure 4(a) and 4(b) summarises findings for respondents’ perceived prevalence and seriousness of the cyberloafing activities.

In general, results indicated that cyberloafing activities that are communication-related (e.g. emailing activities) are more prevalent than those which are entertainment-related (e.g. visiting sports websites, online shopping and online games). Research (e.g. Lim and Teo 2005, Blanchard and Henle 2008) found that employees are more likely to engage in cyberloafing activities that they perceived to be harmless rather than activities that they perceived to have serious negative consequences for themselves and their organisations.

In this study, employees perceived entertainment-related cyberloafing activities such as online games (Mean = 3.96) and online shopping (Mean = 3.08) to yield serious consequences to themselves and for the organisation compared to non-work-related emailing activities. Thus, it is not surprising that respondents were more likely to engage in emailing activities compared to entertainment activities such as online shopping. On a scale of 1 (not at all) to 5 (all the time), the mean ratings for receiving, checking, and sending personal email were 3.16, 2.90 and 2.85, respectively. The means for entertainment-related activities such as online shopping (Mean = 1.28) and online games (Mean = 1.08) were much lower, suggesting that respondents were less likely to use company’s Internet access to engage in these online activities. One plausible reason is that employees rationalised that engaging in entertainment related activities puts themselves at risk for companies’ disciplinary actions. Research had shown that companies would be willing to tolerate minor cyberloafing behaviour such as emailing insofar that it does not impinge on work or put company at risk for legal actions (e.g. Simmer 2002, Lichtash 2004). However, disciplinary actions are likely to be taken against serious loafing behaviours such as playing games and visiting pornographic websites (Lichtash 2004).

As well, employees are likely to view entertainment-related activities as having serious negative
consequences on companies' interest. Prior research has shown that individuals engaged in workplace deviant behaviours when they perceive the consequences to their organisations to be minimal (Hollinger and Clark 1983, cited in Lim and Teo 2005). In this case, entertainment-related activities involve an element of 'play' and employees are likely to perceive these activities as seriously hurting their companies' interests, in terms of productivity loss. Further, visiting such entertainment websites put employees in a moral dilemma. After all, companies hired them for work purposes, not to engage in online

Figure 4. (a) Prevalence and perceived seriousness of browsing activities (b) Prevalence and perceived seriousness of emailing activities.
entertainment. Employees are likely to find it difficult to reconcile and rationalise that online entertainments are beneficial for their work. However, emailing is less likely to create a moral dilemma for employees as it does not constitute ‘playing’ and employees are less likely to perceive it as having serious repercussions for companies.

A notable finding in our study is that instant messaging was not as widely prevalent as was found in an earlier study conducted in Singapore by The Straits Times (2008). On a scale of 1 (never) to 5 (all the time), respondents reported a mean frequency of 2.5 for instant messaging. This low level of engagement could be due to the policies that companies put in place to curb instant messaging. Instant messenger services such as MSN, Yahoo Chat and E-Buddy are likely to be blocked by companies’ firewall or proxy control measures. Such measures serve to deter employees from engaging in instant messaging compared to other online activities at the workplace. These findings are supported by Blanchard and Henle (2008), who found that employees were less likely to use instant messaging compared to other forms of cyberloafing.

5. Discussion

Findings from this study revealed that cyberloafing is generally prevalent at the workplace. The majority of respondents indicated that it was acceptable for them to use their workplace Internet access for personal purposes during working hours. On average, employees reported spending about 51 min per workday on cyberloafing. Although previous studies largely examined the negative impact of cyberloafing, the present study found that using the company’s Internet resources for non-work purposes does have a positive impact on individuals and work. Browsing activities were found to have a positive impact on employees’ emotion, while emailing activities have a negative impact. Interestingly as well, we found that men were more likely than women to report that cyberloafing had a positive impact on work, helping them to deal with problems at work and to be better workers.

Insights drawn from Conservation of Resources (COR) theory (Hobfall 1998) and research on Internet use help to further explain this gender difference. COR theory explains that people value resources and strive to obtain, retain and protect them. People with fewer resources are more vulnerable to resource loss while those with more resources are less vulnerable to resource loss and more capable of resource gain. Studies on Internet use informed us that men have more personal resources with regard to Internet use. They are more knowledgeable about the Internet and are more confident and efficacious in Internet usage compared to women (e.g. Teo and Lim 2000, Fallows 2005).

Premised upon COR theory’s argument that those with greater amount of resources are more capable of resource gains, we argued that male cyberloafers enjoyed such activities more as they are more efficacious in their Internet searches. Male cyberloafers were more likely to experience resource gain in that they are able to cyberloaf with greater ease, derive more pleasure from engaging in such activities and are better able to apply seemingly non-work-related information they obtained from surfing the net to specific work goals. Women, on the other hand, have been found to be less confident in using the Internet and experience more information glut compared to men. This resource scarcity renders them vulnerable to more resource losses such as perceived time wasted, information overload, and loss of attentional resources. Consequently, this leads them to perceive that cyberloafing has a negative impact on work.

We do not intend for our findings to be prescriptive in that we do not imply that men should be allowed to cyberloaf. Rather, these findings highlighted that not all non-work-related online activities conducted during working hours are dysfunctional for employees. Some browsing activities allow for relief from work and motivate employees to perform better. Thus, in designing workplace Internet policies, companies should allow employees some leeway to use the company’s Internet access for non-work-related online activities that have a positive effect on work.

6. Limitations and conclusion

Several limitations of the present study should be acknowledged. First, its cross-sectional nature precludes drawing definite causal inferences about the relationships among variables. This lack of longitudinal data renders our present findings suggestive at best. To make strong causal inferences, a longitudinal methodology would be needed. Second, the reliance on self-reports in this study can be mitigated by supplementing the self-report with data obtained from multiple sources in future research. For instance, data on employees’ productivity can be obtained from peer or supervisor in future attempts to examine this topic.

Third, while findings from this study suggested that some browsing activities do have a positive impacts on employees’ affect and work, we did not examine the specific mechanisms through which cyberloaing impacts on employees and work. Future research should focus on the specific gains (e.g. mental, physical energy, motivation, skills) that could possibly arise.
from cyberloafing and how these gains are instrumental in facilitating work processes and role enhancement.

Fourth, we did not examine the reasons why employees cyberloaf. It is plausible that employees who cyberloaf because they were unjustly treated would perceive cyberloafing to impact their work differently from those who cyberloaf because they are bored/stressed. Prior studies have found that when employees cyberloaf as a form of retaliation against perceived organisational injustice, they are likely to engage in counterproductive cyberloafing (Mastrangelo et al. 2006). In this instance, cyberloafing becomes a tool for employees to take revenge against the company. Such malicious intentions may result in extended periods of unproductive cyberloafing and a deliberate waste of productive time.

On the other hand, employees who are bored/stressed are with their work are likely to use cyberloafing as ‘an office toy’ to escape from mundane work (Anandarajan and Simmers 2005). In this instance, cyberloafing offers employees a break, allowing them to ‘zone out’ and re-focus their attention on work demands. Such cyberloafing is likely to be beneficial as it allows employees to take an innocuous break from what otherwise would be a stressful environment. Thus, whether cyberloafing results in gain or drain on work can be further understood by examining what motivate people to engage in it. The motives underlying why people cyberloaf is an area which warrants future research attention as it may shed light on why cyberloafing yields positive benefits in some situations but not others.

As we enter the brave new workplace where the Internet plays an increasingly important role in how we work, play and communicate, cyberloafing remains an issue of real concern to organisations. Thus, it behoves organisational scholars and human resource practitioners to understand and manage the potential dark side of cyberloafing and harness its potential benefits.

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