THE DUAL NATURE OF PERSONAL WEB USAGE IN WORKPLACE: IMPACTS, ANTECEDENTS AND REGULATING POLICIES

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Abstract

With the ubiquity of various IT devices in workplace and the increasingly blurred boundary between work and non-work, organizational employees nowadays increasingly engage in online behaviors for personal activities, which are not related to work during working hours by using organization’s IT resources, hereafter Personal Web Usage (PWU) at workplace. Different even opposite opinions on the antecedents, impacts and regulating policies of PWU have been proposed in proliferating literature. It is our contention that discussing the nature of PWU is a necessary step to enhance our understanding to PWU. By reviewing previous research, we propose the dual nature of PWU with respect to its antecedents, impacts and regulating policies. For antecedents, PWU is both an expressive means for employees to vent their negative affections and an instrumental means for employees to pursue positive utilities. For impacts, PWU might have positive impacts in some circumstances and it could also exert negative effects in other ones. For regulating policies, discriminative policies rather than universal policy should be proposed in different circumstances. The dual nature of PWU facilitates to unify the different even opposite viewpoints of previous studies; it also provides guidance for future research by proposing multiple research questions based on the duality of PWU.

Keywords: Personal Web Usage, Dual Nature, Expressive vs. Instrumental, Constructive vs. Destructive.
1 Introduction

Organizations have increased their usage and reliance on IT devices such as computers, tablets, smartphones as well as the Internet. With the increased availability of these IT facilities in workplace, organizational employees may also find themselves increasingly using these facilities for personal purposes during office hours (Henle et al. 2009, Weatherbee 2010). Such employees’ online Web behaviors for personal purposes that are outside current work requirement by using any of organizational IT resources is defined as Personal Web Usage (PWU) at workplace (Simmers & Anandarajan, 2002). Examples of PWU include but not limited to surfing news sites, visiting social network sites, online shopping, online chatting, online gaming, stock trading, etc.

With the boundary between work and non-work becoming blurred (Sharma & Gupta 2003, König & Guardia 2014), PWU is also increasingly prevalent in organizations (Kim & Byrne 2011, Wagner et al. 2012). Human resource professionals estimated that employees spend about one hour engaging in personal activities using the Internet everyday (Lim & Chen 2012), while employees admitted to spending around two hours per day (Rajah & Lim 2011). Compared with other traditional non-work related activities in workplace, PWU does not require employees physically leave their office and thus it is more convenient and invisible for employees to engage in PWU (Wanger et al. 2012). In spite that there is no consistent opinion on the potential outcomes of PWU yet, due to its prevalence in organizations, both scholars and practitioners are paying more and more attention to this phenomenon.

Previous studies have examined PWU from different perspectives with respect to its antecedents, consequences and policy related issues. Different even contradictory results have been derived. One reason for this inconsistency and contradiction, we argue, is that there is a lack of discussion about the nature of PWU. In specific, different studies are conducted addressing different aspect of PWU nature, which is the root of those different results. Specifically, on the one hand, some studies hold the assumption that PWU has negative impact on organizations in terms of productivity and information security (Henle et al. 2009, Wagner et al. 2012). Accordingly, these studies explain why employees engage in PWU in reference to the literature from the field of counterproductive work behavior, and the antecedents of PWU such as perceived injustice from organizations (Lim 2002), work dissatisfaction (Mahatanankoon 2006), etc. are proposed, implying that PWU is an expressive means for employees to vent their negative affections toward organizations or work. On the other hand, other studies argue for the positive effect of PWU in terms of better maintaining work/home balance (Coker 2011, Ivarsson & Larsson, 2012), improving creativity and learning ability of employees (Oravec 2002, Lim & Chen 2009). Accordingly, these studies provide explanations to employees’ PWU behaviors from the viewpoint of perceived utility, implying that engaging in PWU is an instrumental means for employees to pursue various positive utilities, rather than a deviant behavior as an expression of negative affections.

It is our contention that both positive outcomes and negative outcomes are important aspects of the potential impacts of PWU, and both expressive nature and instrumental nature are important aspects of the PWU nature. Recognizing the dual nature of PWU is important, because leaving unexplored any one of the two aspects might prohibit us from fully understanding why employees engage in PWU and how it affects employees and organizations. Accordingly, the objective of this study is to elaborate on the dual nature of PWU with respect to its antecedents, impacts and regulating policies. In specific, by reviewing existing literature, we discuss how different and dual viewpoints exist with respect to the antecedents of PWU, impacts of PWU, and regulating policies of PWU. We then articulate the dual nature of PWU, and further propose that future research on PWU should keep a dual perspective in mind rather than a single perspective. Based on the dual nature of PWU, future research directions are proposed.
The remainder of this paper is organized as follows. In the second section we review existing research on PWU that address antecedents, impacts and policies related issues of PWU, as well as the typologies and taxonomies of PWU. We analyze how two-sided opinions and results are proposed and derived by previous studies. Based on this, we propose the nature of duality of PWU in the third section. Future research directions stemming from duality of PWU are proposed in the forth section. Finally, the limitations and conclusions are proposed in the last sections.

2 Literature Review

In this section, we review existing literature of PWU. We adopt a narrative literature review, given that there are not so many empirical studies on PWU, especially with respect to the impacts of PWU. Through a detailed narrative review, it is possible to include every study, giving a more representative view of the whole body of research (Van der Doef & Maes 1999). And thus better analyze the basic similarities and the crucial differences of previous studies.

2.1 Methodology Used to Identify Research Publications

Existing literature has employed different terms to describe the phenomenon of employees’ usage of organizational IT resources for personal purposes that are not related to work tasks during working hours. In addition to the PWU term, examples of other terms include Non-Work Related Computing (NWRC) (Lee et al. 2005, Pee et al. 2008), Cyberloafing (Lim 2002, Zoghbhi et al. 2006, Henle & Blanchard 2008, Liberman et al. 2011, Sawitri 2012), Cyberslacking (Block 2001, Ugrin et al. 2007, Vitak et al. 2011), Junk Computing (Guthrie & Gray 1996), Personal Internet Use (Garrett & Danziger 2008), Internet Abuse (Griffiths 2003, Chen et al. 2008, Chou et al. 2008), Workplace Internet Deviance (Zoghbhi, 2006), name a few. Although these terms are not exactly the same with regard to their definitions and connotations (Kim & Byrne 2011), we include all of them in our literature review given that they are all used to describe the similar phenomenon.

We conducted a systematic literature search to identify the relevant literature following the steps from Webster & Guest (2002) as well as Okoli & Schabram (2010). Specifically, we first searched the literature from the academic databases of Sciencedirect and Ebsco, using all of the eight terms above as key words. We found 45 papers from Ebsco and 34 papers from Science Direct. We then also checked the references of all the papers that we found from the two databases to further recognize relevant literature. By eliminating the overlapping papers that exists in both databases and the papers that are not actually related to personal web usage, we finally included 64 papers in our literature review.

In general, previous research on PWU mainly addressed the following issues: 1) impacts of PWU, 2) antecedents of PWU, 3) policies related research on PWU, 4) typologies and taxonomies of PWU. We reviewed the different viewpoints in the literature that address these issues respectively, and further propose what does duality mean in different aspects of PWU research (i.e., antecedents, impacts and policies related issues of PWU).

2.2 Constructive or Destructive: Duality of Impact of PWU

There has been a discussion on the impact of PWU for a decade. In brief, there are generally two streams of viewpoints on PWU regarding to its impacts on employees and organizations. At the early stage of the literature, PWU is simply considered as an idling behavior at work, which should be prohibited by organizations. For example, Block (2001) views PWU to be no difference from other traditional “goofing off” behaviors such as long time lunch. Lim et al. (2002) also consider PWU to be deviant, but with its own characteristics given that it is an IT way of loafing. Similarly, Wagner et al.
(2012) contend that it is easier for employees to engage in PWU than other idling behaviors, PWU do not require one to be physically absent from the office, thus it is not visible. And engaging in certain types of PWU activities such as downloading pirated software might also give rise to security and legal risk to organizations (Blanchard & Henle 2008), in addition to productivity loss. Consequently, studies in this stream are based on the position that PWU is a deviant behavior at work, which negatively affects employees’ work performance and organizational benefits (Lim 2002, Lim & Teo 2005, Prasad et al. 2010). These studies attempted to identify the antecedents of PWU referring to the literature of deviant behaviors at work (Lim 2002), as well as to address how to control or deter employees’ PWU behavior (Henle et al. 2009), or the effectiveness of these control mechanisms or deterrence policies (Ugrin et al. 2008, Bock et al. 2010, Ugrin & Pearson 2013).

By contrast, other studies are standing on the positive position of PWU in terms of employees’ work-life balance, resistance and recovery (Ivarsson & Larsson, 2012). For example, Oravec (2002) highlights that constructive use of online recreation can enhance many workplaces and perhaps ultimately make them more productive, in particular, engaging in activities such as online leisure can allow employees to reestablish a sense of control, which is deemed as a key contributor to both mental and physical well-being (Abeles 1991, p297). Similarly, Coker (2011) also documents the positive effects of Workplace Internet Leisure Browsing (WILB) on employee productivity, in particular, engaging in WILB enables restoration of mental capacity and fosters feelings of autonomy. In addition, Rajah and Lim (2011) found that there is a positive relationship between employees’ non-work related Email use and their organizational citizenship behaviors. Messarra et al. (2011) found that freedom of access to Internet and engaging in PWU was positively related to work satisfaction. Accordingly, in this stream, scholars examined the antecedents of PWU from the angle of positive outcomes of using Internet (Garrett & Dansiger 2008), as well as how to develop constructive policies with regard to PWU, and the effectiveness of these constructive policies (Wong et al. 2005).

In summary, both positive and negative effects of PWU are highlighted by previous studies, and the subsequent studies addressing antecedents and policy related issues of PWU follow both of these two streams. Following this acknowledgement, we propose that PWU has a dual nature with regard to its impact on employees and organizations, namely PWU might exert positive effect in some circumstances and it could also exert negative effects in other ones. Our proposition is in line with Anandarajan & Simmers (2005), whose qualitative research suggests that PWU in the workplace is a complex issue, with the potential for both dysfunctional and constructive behaviors.

2.3 Expressive or Instrumental: Duality of Antecedent of PWU

Following the two streams of viewpoints concerning the impact of PWU, previous studies have also offered multiple models to explain why employees engage in PWU.

The seminal study to theoretically examine antecedents of PWU is conducted by Lim (2002, in which PWU is considered as a deviant behavior as a result of the waste of time and loss of productivity. Building upon the theories in relation to counterproductive workplace behaviors such as social exchange theory, justice theory and neutralization technique, Lim (2002) found that employees are more likely to legitimize their PWU behavior when they perceive injustice from organizations, by invoking the neutralization technique (specifically the metaphor of the ledger). In a similar vein, Ahamadi et al. (2011) found that distributional and procedural justice have a significant negative relationship with PWU, although there is no significant relationship between relational justice and PWU.

Based on those findings, Zoghbi conducted multiple studies to examine the relationships between different types of organizational justice and PWU behavior. The results suggested that fear of punishment fully mediates the link between interactional justice and PWU (Zoghbi 2006), while normative conflict fully mediates the relationship between procedural justice and PWU (Zoghbi 2009).
In addition, Zoghbi empirically shows that work “Anomia” (Zoghbi 2007) and self-control (Zoghbi 2011) serve as a moderator to the relationship between organizational justice and PWU behavior. Besides organizational justice, Henle & Blanchard (2008) found that employees’ perception of role ambiguity and role conflict are positively associated with their PWU behavior while role overload perception is negatively related to PWU. RuningSawitri (2012) provided the same result in terms of the relationship between role ambiguity, role conflict and PWU, and according to their study, the relationship between role overload and PWU is moderated by Internet experience.

Despite that organizational justice and work stressors (i.e., role conflict and role ambiguity) are different antecedents of PWU that are proposed from different perspectives (i.e., based on justice theory and role theory), these two streams of antecedent research have one point in common, namely, they both consider PWU as deviant behavior and consider PWU as a tool to cope with negative affections toward organizations (i.e., perceptions of injustice or role problems). In other words, engaging in PWU per se is not the purpose of the employees; PWU is just a means for employees to express their negative affections toward some encounters. As Griffiths (2010) suggested, online behavior could provide a potent escape from the stresses and strains of real life.

By contrast, another stream of studies concerning the antecedents of PWU argue that besides negative affections toward organizations as the main reason that leads to PWU, other perspectives should also be examined. In this stream, Garrett & Dansiger (2008) validated that expected outcomes of Internet use (e.g., perceived utility of Internet) are the main incentives for employees to engage in PWU, rather than negative affections such as Perceived Injustice and Work Dissatisfaction. Garrett & Dansiger (2008) further contend that negative affections toward the workplace might have powerful influence on most extreme forms of deviant Internet behavior such as the theft or destruction of proprietary data and software, but has only a limited role in accounting for more extensive personal Internet use during work.

Taken together, corresponding to different viewpoints on the impact of PWU, there are also two streams of antecedents of PWU identified previously. Although we strongly endorse the viewpoint that PWU is not completely deviant, based on the discussion above, we believe it is appropriate to borrow the concepts from criminology literature, namely instrumental behavior and expressive behavior (Burek, 2006), to summarize the nature of PWU according to existing research on antecedents of PWU. In specific, from the destructive point of view, PWU is considered as a means to express their negative affections toward their organizations or jobs, due to perceived injustice or role problems. Accordingly, employees’ PWU behaviors are motivated by these negative affections. We argue that there are two mechanisms through which negative affection is related to PWU, namely coping mechanism and retaliating mechanism. Coping mechanism means that employees might engage in PWU as an escaping cope of negative encounters. As Griffiths (2010) suggested that online behaviour could provide a potent escape from the stresses and strains of real life. Retaliating mechanism means that employees engaging in PWU to retaliate the organizations or supervisors due to the perceived injustice or other negative encounters (e.g., work dissatisfaction, role conflict, etc.). From the constructive point of view, PWU is considered as an instrumental means for employees to pursue various positive utilities by using Internet. Accordingly, employees’ PWU behavior are motivated by these utilities. Following this acknowledgement, we propose that PWU has a dual nature in terms of its antecedents; it is both an expressive means for employees to vent their negative affection and an instrumental means for them to pursue various utilities.

2.4 Punitive Discipline or Positive Discipline: Duality of Policies of PWU

There are also increasing studies addressing the policy related issues of PWU due to the increasing prevalence of PWU in organizations. In line with the two-sided viewpoints regarding to the impact and
antecedents of PWU, two disciplinary approaches have been mentioned by previous studies, namely punitive approach and positive approach.

Punitive approach is proposed under the assumption that PWU is deviant that should be prohibited. Drawing from deterrence theory (Gibbs 1975), these studies highlight the role of punishment or deterrence to curb employees’ PWU behavior. For example, Ugrin et al. (2008) found that Security detection mechanisms and awareness of enforcement have the significant deterrence on employees’ intentions of PWU. Similarly, the study of Shepherd & Klein (2012) suggests that employees’ PWU will lessen after a non-intrusive reminder of the acceptable use policies, which serves as a deterrence mechanism. Henle et al. (2009) found that employees would be less likely to engage in PWU if the policy includes periodic monitoring. In addition, Zoghbi & Olivares (2010) found that only by interacting together with punishment is the monitoring mechanism able to deter employees from PWU behaviors. These findings that highlight the role of deterrence are consistent with the findings of Young (2010), which suggest that adoption of acceptable Internet use policies alone to combat unproductive use of the computer is ineffective (Johnson & Ugray 2007).

In spite of the wide application of deterrence policy or mechanisms in practice, some studies found that the effectiveness of deterrence in the context of PWU is not the case as expected. For example, Li et al. (2010) suggest that the effect of formal sanction risks and potential Internet security risks is not as strong as the effect of perceived benefits and personal norms against Internet abuse. Recently, Moody & Siponen (2013) suggested that penalty and control have limited effect in PWU; other means of intervention should be adopted. Furthermore, deterrence related policies might negatively affect employees’ work satisfaction (Shepherd & Klein 2012). As Vodanovich et al. (2010) suggested, simply blocking channels like YouTube and Facebook to regulate employees’ digital behavior is a poor solution. These solutions may prevent organizations from an opportunity to empower employees to connect and collaborate with one another. Furthermore, deterrence per se might have some negative effect. For instance, Urbaczewski and Jessup (2002) found that monitoring helped to ensure productivity, but only at the expense of overall satisfaction, and employees’ satisfaction with monitoring was found to be significantly greater if the aim of the monitoring is to provide feedback to employees rather than controlling their behavior.

Given the potential beneficial aspect of PWU, some studies propose positive approaches to tackle the issue of PWU. In specific, Wong et al. (2005) examined the effectiveness of two different disciplinary approaches, namely punitive discipline and positive discipline, on employees’ commitment to change with respect to PWU behaviors. In this study, commitment to change was examined in terms of three categories, namely affective commitment to change (change by desire), normative commitment to change (change by obligation) and continuance commitment to change (change by cost-benefit comparison). The results suggest that positive discipline approach was more effective than punitive approach in inducing affective and normative commitment to change, and there was no significant difference between the two disciplinary approaches in terms of inducing continuance commitment to change. The authors further propose that, since the related literature shows that affective and normative commitment to change lead to stronger behavioral support, the result of this study suggests that positive disciplinary approach may be a more effective disciplinary approach to change employees’ PWU behavior. Similarly, Bock et al. (2010) adopted the fit perspective to examine the effectiveness of punitive discipline systems and positive discipline systems in different circumstances. The results suggest that there is a fit between discipline system and task characteristic and organizational culture. In specific, when task non-routineness was high, PWU control mechanisms were less effective in reducing PWU behavior. Punitive discipline systems were associated with greater satisfaction with the discipline system in bureaucratic cultures, where positive discipline systems were related to higher satisfaction in innovative and supportive cultures. Finally, positive discipline systems were also associated with reduced NWRC behavior in innovative cultures.
To summarize, both punitive and positive discipline approaches are examined by previous studies, and these two discipline approaches have different merits in different circumstances. As Bock et al. (2010) suggest, there is no single policy or mechanism that is the best to deal with PWU issue. Other factors such as job characteristic or organizational culture should also be taken into account. Punitive approach is proposed given the destructive side of PWU, whereas positive approach is proposed given the constructive side of PWU. Thus, we argue that the best policy and mechanism of PWU is supposed to curb the detrimental effect of PWU without losing the beneficial effect of PWU.

2.5 Taxonomies and Typologies of PWU

Since the Internet world is such a rich and colorful playground that so many activities could occur in the Internet, and particularly in consideration of the mixed findings in terms of the antecedents and impacts of PWU, scholars started to examine the complexity of PWU per se. The typical stream of these studies is to categorize various PWU activities from different perspectives. As Mahatanankoon & Anandarajan (2004) proposed that, PWU is a broad spectrum with various activities, one-dimensional PWU measure may not be sufficient to address complete concerns about Internet usage in the workplace.

One attempt of this exploration is Anandarajan et al. (2002), who proposed two dimensions to understand various PWU behaviors: opportunities versus threats and organizational versus interpersonal. A typology of PWU are further proposed based on these two dimensions: disruptive PWU, recreational PWU, personal learning PWU and ambiguous PWU. While we acknowledge the substantial contribution made by this study, this typology is based on the perception of the appropriateness of the particular PWU behavior rather than actual behavior, thus it is not without limitation (Blanchard & Henle 2008). For example, online chatting might be both recreational PWU as well as personal learning PWU, it might be even disruptive PWU if there is inappropriate topics involved in the online chatting. However, Anandarajan et al. (2002) provides an exemplary research method (i.e., multidimensional scaling techniques) to explore different dimensions of PWU.

In addition to Anandarajan et al. (2002), several other dimensions have been implicitly or explicitly mentioned by previous studies. For example, Lim (2002) categorize PWU activities into Emailing behavior and Browsing behavior, implying that communication technology is an important dimension to categorize PWU behaviors. Blau et al. (2006) further added interactive PWU as the third dimension of PWU, in addition to browsing-related and non-work emailing activities. Another example is from Blanchard & Henle (2008) who categorize PWU to be minor forms of PWU behavior and serious forms of PWU behavior, with explicitly argument that duration and frequency are important dimensions to understand different forms of PWU behaviors. In a similar vein, Mahatanankoon et al. (2004) categorized PWU into three dimensions including PWU related to e-commerce, PWU related to information seeking, PWU related to interpersonal communication. Doorn (2011) proposed four types of PWU behaviors, namely development, recovery, deviant and addiction behavior.

We propose that the typologies and taxonomies of PWU are critical to better understand the phenomenon of PWU as a whole as well as the antecedents, impacts and regulating policies respectively, since it is reasonable to propose that different PWU activities with different frequencies and durations might have different antecedents, impacts and might be regulated by different policies. We will elaborate on this in the following section.

3 The Dual Nature of PWU

The literature review above suggests that different opinions exist previously with respect to the impact, antecedent and regulating policy issues of PWU. As Anandarajan & Simmers (2005) suggested, PWU in the workplace is a complex issue, with the potential for both dysfunctional and constructive
behaviors. As an elaboration on this complex issue, we further assert that whether PWU is dysfunctional or constructive is, to a large extent, dependent on why and how employees engage in PWU. In other words, the motivations behind PWU behaviors and the patterns of PWU behaviors matter in predicting the impact of PWU. For example, if an employee engages in PWU for few minutes as a mental break (i.e., instrumental means), PWU per se might be mainly constructive as a tool to relax. However, if he or she engages in PWU for one hour, then PWU evolves from a tool of relaxation to a means of escaping from work (i.e., expressive means), and thus become dysfunctional, as suggested by Bock & Ho (2009) that, time spent on NWRC reduces employee productivity. Therefore, we argue that there exist different patterns of employees’ PWU behaviors. In some circumstances, employees use PWU as an ideal means to avoid work or escape from reality (Griffiths 2010). The behavioral patterns of PWU in these two circumstances vary in terms of PWU duration, PWU content (PWU activities), PWU frequency, etc. For example, some employees engage in PWU due to work dissatisfaction that stems from organizational injustice (Lim 2002); engaging in PWU behavior in this case might be a means of avoiding work to retaliate. Thus, their PWU behavior is generally aimless, with high frequency or long lasting. Consequently, in this circumstance engaging in PWU probably negatively affect employees’ performance. By contrast, other employees engage in PWU because of the positive utilities that they expect from using Internet (Garrett & Danziger 2008), such as taking a short break. Thus, they engage in PWU with a clear objective (i.e., taking a short break) and probably with lower frequency or short duration. As a result, engaging in PWU in this case might be positive with regard to employees’ mental recovery and thus work productivity. We term the first behavioral pattern of PWU as Emotion Driven PWU, while the latter behavioral pattern of PWU as Utility Driven PWU. Accordingly, employees engaging in different patterns of PWU are supposed to have different reactions toward one particular type of PWU policy (e.g., punitive approach or positive approach). For instance, employees engaging in Utility Driven PWU may be more resistant to deterrence-based policies.

Based on the literature review in previous section, and the argument about the behavioral patterns of PWU above, we propose the dual nature of PWU, which include the following four key points: (1) Employees engaging in PWU in different circumstances are driven by different factors, PWU serves either as an expressive means of negative affections or as an instrumental means to pursue positive utilities, (2) Employees’ PWU behaviors driven by different factors present different behavioral patterns in terms of PWU frequency, amount of time spent on PWU, PWU content, and PWU objective, (3) PWU might exert positive as well as negative impacts on employees and organizations, and it is the motivation of PWU and behavioral pattern of PWU that predict the impacts of PWU, and (4) Different policies rather than universal policies should be proposed in different circumstances (i.e., different motivations of PWU, different behavioral patterns of PWU, different organizations, etc.), and other factors such as organizational culture, job characteristics should be taken into account when proposing PWU related policies.

Figure 1. The Dual Nature of PWU
The dual nature of PWU is essentially about the impact of PWU, namely both constructive nature and destructive nature in terms of the impact of PWU on employees and organizations. However, the root of the different impact, we argue, stems from the different antecedent of PWU, namely, employees engage in PWU in different circumstances are driven by different factors. Employees’ PWU behaviors that are driven by different factors may present different behavioral patterns in terms of PWU frequency, PWU content, and PWU duration. PWU might exert positive as well as negative impacts on organizations, it is the different PWU behavioral patterns that predict the impact of PWU on employees and organizations. Therefore, the root for the dual nature of PWU relies on the different motivations for employees to engage in PWU. The dual nature we articulated above is represented as Figure 1.

Recognizing the dual nature of PWU is important. Not only because it facilitates explaining different results and unifying opposite findings derived by previous studies, but also because it provides new avenues for the future research on PWU. In the next section, we provide a research agenda to validate the dual nature of PWU that we proposed.

4 A Research Agenda

As we articulated above, the duality of PWU involves different aspects of PWU (i.e., antecedents, impacts and policy related issues), as well as the relationships among these different aspects of PWU. Based on this, we propose a research agenda to validate the dual nature of PWU from various perspectives.

4.1 To Validate the Dual Nature of PWU With Respect to Its Antecedents

As we discussed earlier, the dual nature of PWU stems from different motivations behind employees’ PWU behaviors, namely PWU behaviors as an expression of negative affection and PWU behaviors as an instrument of positive utility. Therefore, the first step to validate the duality of PWU is to validate the dual streams of antecedents of PWU. Despite that the two roles of PWU plays (i.e., expressive means and instrumental means) have been demonstrated separately in previous studies, yet there is no study adopting the dual perspective to examine the antecedents of PWU. Adopting the dual model is necessary, not only because this is the first step to validate the dual motivations behind employees’ PWU behaviors and the dual roles that PWU plays, but also because this provides a foundation to validate the other aspects of the duality of PWU, as discussed in the next section.

As an expressive means, previous literature has primarily mentioned that PWU is used as a means for employees to retaliate organizations due to perceived injustice (Lim 2002), or vent their negative affections because of role problems (Henle & Blanchard 2008). Following this logic, any factor that gives rise to negative affections might be the potential antecedent of PWU. As an example, according to job demand-control model (Van der Doef & Maes 1999), misbalance between job demand and job control, in specific, in circumstances with high job demand (e.g., high cognitive demand) but low job control (e.g., low job autonomy) may lead to employees’ burnout, which is a negative affection. Thus it is inferred that employees with high job demand but low job control may be more likely to engage in PWU if possible, as an express of their burnout due to the mismatch between job demand and job control.

PWU as an expression often involves employees experiencing negative affections. However, negative affections may not only root from organizations, employees might also experience negative affections due to encounters that are outside their work and organizations. Therefore, while appreciating the previous findings of Lim (2002) and Henle & Blanchard (2008), we suggest that PWU is also a means for employees to deal with their own negative affections that is irrelevant to organizations, such as depression because of, for example, personal issues. We can find support for this argument, to some
extent, from the findings of Wagner et al. (2012), whose research found that lost sleep is an antecedent of PWU. And our assertion that personal negative affections might be an antecedent of PWU can also be supported by the research of Chen et al. (2008), who found that external locus of control, defined as a person’s belief in fate or luck that is outside their own controls, is positively related to PWU. In this stream, social exchange theory and other related theories (e.g., justice theory), as well as control related theories (e.g., job demand-control model) and personality related theories can serve as the appropriate theoretical basis.

As an instrumental means, employees may engage in PWU to pursue various utilities and gratifications by using Internet. D’Abate (2005) conducted qualitative study to examine employees’ engagement in personal business on the job, which found that engaging in personal activities at work is a widespread pattern of behavior, and factors such as convenience, liberation of personal time, on one’s mind, respite, work-life balance are frequently mentioned by interviewees. More recently, König & Guardia (2014) found that private demands was a significant predictor of PWU. In this sense, rational choice theory (Paternoster & Simpson 1996), Work/family border theory (Clark 2000), and use & gratification theory (Stafford et al. 2004) can serve as a good theoretical basis to explore instrumental factors of PWU.

To summarize, one necessary step to validate the duality of antecedents of PWU is to validate a dual-perspective model that address different roles that PWU plays (i.e., expressive means and instrumental means). In specific, a dual-perspective model is needed to examine what are the different factors of PWU and how they interact with each other.

4.2 To Explore Dimensions and Patterns of PWU

Due to the richness and colorfulness of the Internet world, employees might engage in PWU to perform various activities. Engaging in different activities may due to different motivations and might have different impacts on employees and organizations. For instance, impacts are different when employees surf general news websites and when employees download piratic software with virus embedded. Furthermore, even for the same PWU activity, impacts can vary if employees perform it with different patterns. For example, impacts are different if employees surf news website for 2 hours and if they surf news website for 10 minutes. As we discussed earlier, different employees engaging in PWU in different circumstances may present different behavioral patterns of PWU (e.g., Emotion Driven PWU and Utility Driven PWU), and these behavioral patterns vary with respect to PWU frequency, PWU content, PWU duration, PWU objective, etc. Therefore, it is imperative to explore different dimensions (e.g., time, content, entity involved, etc.) of PWU behind various PWU activities. Accordingly, behavioral patterns can be categorized based on these dimensions. As Mahatanankoon & Anandarajan (2004) proposed that, PWU is a broad spectrum with various activities, one-dimensional PWU measure may not be sufficient to address complete concerns about Internet usage in the workplace.

In spite that existing studies have started to explore the taxonomies and categories of PWU (Anandarjan et al. 2002, Lim 2002, Mahatanankoon et al. 2004, Blau et al. 2006, Blanchard & Henle 2008, Doorn 2011). To date, it is still a challenge in academia to differentiate different types and different patterns of PWU activities. This prohibits us from better identify the different antecedents and impacts of different PWU behaviors. By behavioral patterns, we mean more than just classifying different types of PWU activities based on one or two dimensions. In stead, more factors should be taken into account when recognizing behavioral patterns such as PWU duration, PWU frequency, PWU content, PWU objective, entities involved, etc.

Furthermore, there is still little research linking these different typologies of PWU with antecedents, impacts of PWU, as well as the regulating policies of PWU. As we suggested earlier, employees engaging in Emotion Driven PWU are expected to react differently to deterrence-based policies from
those who engage in Utility Driven PWU. Given the importance of different behavioral patterns of PWU in examining the impacts of PWU, we suggest that further explorations and more empirical studies should be conducted.

### 4.3 To Examine The Impact of Different Patterns of PWU

There are different even opposite viewpoint on the impact of PWU on employees and organizations. We argue that one reason for this contradictory viewpoint is that there are different patterns of PWU behaviors, and different behavioral patterns of PWU have different impact on employees and organizations. As we discussed above, different employees engage in PWU differently with respect to PWU frequency, PWU content, PWU duration, etc. Some employees engage in extreme forms of PWU such as data theft or intentionally diffuse virus, while some other employees may engage in PWU that are not so extreme, such as taking a short mental break by surfing news or just take a glance on the result of the latest football match displayed online. As we suggested earlier, these different PWU behaviors are supposed to belong to different patterns of PWU behaviors, and they obviously have different impact on employees and organizations.

In addition, the impact of one particular PWU activity or one particular pattern of PWU behaviours may have different impact on different dependent variables. As an example, PWU might have positive impacts on employees’ creativity in some circumstances, but it also might be negatively affect employees’ attention level and attention span at the same time, which is very important to work performance for those knowledge workers (Posner & Cohen 1984).

As Al-Shuaibi et al. (2013) suggested the research on consequence of PWU is the most lacking at present. We further more suggest that the patterns of PWU behaviors should be taken into account when examining the impact of PWU on employees and organizations. Specifically, we suggest two streams of research on the impact of PWU for future studies. The first stream is to identify the different impact of different behavioral patterns of PWU on employees and organizations. The second stream is to explore different impact of PWU behaviors on different types of dependent variables (e.g., productivity, creativity, attention, etc.).

### 4.4 Regulating Policy Related Issues

According to the duality of PWU, it is suggested that different rather than universal policies should be implemented in different circumstances. As Anandarajan et al. (2002) suggested, a blanket policy prohibiting all PWU may indeed be “throwing the baby out with the bathwater”. As the line between work life and home life becomes increasingly murky, this point may be more significant. Indeed, the study of Bock et al. (2010) found that there should be a fit between PWU control tactics and other contextual factors such as job characteristics and organizational culture. However, the mechanisms by which contextual factors such as job characteristics and organizational culture affect the effectiveness of PWU policies is not specified yet. This is a serious omission in light of the fact that the failure to specify the mechanisms would limit organizations to propose a suitable PWU policy that best fit this organization. Therefore, we suggest that future research should explore to specify this fit mechanism.

To our knowledge, employees in different types of organizations are supposed to have different attitude toward PWU, which is determined by their job characteristics and organizational culture. In other words, employees in different organizations have different normative value with respect to their Internet usage behaviors at work. Any policy aiming at regulating employees’ Internet behaviors is supposed to be consistent with employees’ normative value. In this sense, theories such as Cognitive Dissonance Theory (Elliot & Devine 1994) and Psychological Contract Theory (Robinson 1996) are appropriate to serve as a theoretical framework to examine the effect of PWU policy on employees’
work attitude and work behavior. One feasible avenue to address this issue is to examine the impact of PWU policy on employees’ psychological contract, and to compare employees’ attitude and behaviors before and after the implementation of PWU policy, with respect to employees’ PWU behavior (or intention), work attitude, job satisfaction, organizational involvement, organizational citizenship behavior, etc.

Furthermore, in addition to organizational contextual factors such as job characteristics and organizational culture, employees’ motivation to engage in PWU, as we summarized earlier to be either expressive or instrumental, is an important factor to take into account when regulating policy is proposed. As studies from criminology field suggest, deterrent sanctions apply most readily to crimes with instrumental motives, whereas offenses driven by expressive ones are considered harder to deter (Willison & Warkentin 2013).

Taken together, we suggest three streams of research in this field. First, the mechanisms by which different policies affect employees’ Internet behavior should be clarified. Ugrin & Pearson (2008b) proposed that many employees felt that their employer should have a policy to regulate Internet behaviors as long as it is fair. In this regard, theories such as justice theory, psychological contract theory and cognitive dissonance theory are supposed to provide appropriate theoretical basis. Second, not only employees’ Internet behaviors but also other aspects of employees, such as employees’ work satisfaction, work performance, etc. should also be examined when discussing the impact of the policies of interest on employees and organizations. Third, different policies should be proposed to address different patterns of PWU behaviors. As Ugrin & Pearson (2013) found that the effectiveness of detection mechanisms are different with respect to some PWU activities (e.g., viewing pornography, managing personal finances and personal shopping) and other activities (e.g., personal emailing and social networking). Therefore, we propose that “hard” policies such as sanction and “soft” policies such as employees’ ethics training (Piotrowski 2012) should be proposed to address different PWU activities. In addition, with the increasing availability of private smart phones and tablets, organizations should also consider whether their Internet policy (e.g., Internet monitoring) would move employees’ activities from work laptops (or desktops) to their own smart devices.

5 Limitation and Future Research

By proposing the framework of the dual nature of PWU, we provide a new avenue to understand the PWU phenomenon as a whole as well as its antecedents, behavioural patterns, impacts and regulating policies. However, there are two limitations of our model. First, some contextual factors as well as individuals’ personality factors are not included in our model, such as big five traits (Jia et al. 2013), self-control (Ugrin et al. 2008a, Zoghbi 2011), organizational culture, etc. For a thorough review of other antecedents of PWU, see Ozler & Polat (2012). We did not include the contextual factors and personality factors because these factors are neither expressive nor instrumental in essence; therefore they are beyond the focus of this review. Future research can propose a more comprehensive model of the duality of PWU by taking the contextual factors and other more factors into account. Second, our framework of the duality of PWU clarifies, to some extent, the mixed results of previous studies as well as relationships among different aspects of PWU (i.e., antecedents, behavioural patterns, impacts, and regulating policies). However, there is a lack of strong theoretical basis to support the framework. Future research should address this issue by providing a possible theoretical basis for the framework.

6 Conclusion

Drawing from the proliferating literature on PWU, we propose the dual nature of PWU with respect to the antecedents, impacts and regulating policies. We further argue that the root of the duality nature of
PWU stems from the dual motivations behind employees’ PWU behaviors, namely PWU either serves as an expressive means of employees negative affections, or serves as an instrumental means for employees to pursue various utilities. These different motivations of PWU further facilitate different behavioral patterns of PWU, which exert different impact on employees and organizations. And also, these different motivations, together with some other contextual factors such as job characteristics and organizational culture, predicts employees’ psychological and behavioral reactions with respect to a certain type of PWU regulating policy. A research agenda is proposed to validate the dual nature of PWU that we proposed, as guidance for the future research.

References


