

Too Much of a Good Thing? BlackBerry use Changing the Terms of Engagement

Authors:

Dr Judith S. MacCormick, Australian School of Business, University of NSW, Email: Judithm@agsm.edu.au
Dr Kristine F. Dery, University of Sydney, Email: K.Dery@econ.usyd.edu.au

ABSTRACT

Claims are increasingly made that 'engaged' employees are more productive, profitable, more customer-focused, and more likely to withstand temptations to leave (e.g., Gallup, 2008). Fueling the demand for workers to contribute their discretionary effort is the capacity of communication technologies that can generate and transport data and information anywhere, anytime. We address two key questions. First, can we have too much as well as too little behavioral engagement? We propose a non-linear model of engagement capturing both under- and over-engagement. Second, we ask whether BlackBerrys and similar handheld communication devices can amplify the range of engaged behaviors. Preliminary findings from interviews with BlackBerry users raise important questions around the long-term sustainability of over-engagement, particularly in the context of ubiquitous computing.

Key words:

Job and Work design (Organizational Behavior),
Work Performance (Organizational Behavior),
Work/life Balance (Sustainability and Social Issues in Management),
Emerging Technologies (Technology, Innovation and Supply Chain Management),
Strategic Human Resource Management (Human Resource Management and Development)

In the context of growing competitive pressures and more rapid change, increasing global competition and the need to do more with less, the notion of higher levels of engagement unleashing extra effort with the prospect of increasing productivity is compelling. Organizations that learn how to harness this potential are likely enjoy distinct competitive advantage (Macey & Schneider, 2008: 15). Yet employee engagement is a concept with a sparse and diverse theoretical and empirically demonstrated nomological net (Macey & Schneider, 2008: 3). The essence of engaged behavior, as it is commonly understood, is putting forth "discretionary effort" (Towers-Perrin, 2007-2008), traditionally regarded as comprising a) duration, b) intensity, and c) direction (Campbell & Pritchard, 1976; Kanfer, 1990). However, because a positive value is typically assigned to employee engagement, engagement is generally regarded as a good thing for individuals and organizations. This, as Masson et al. (2008) point out raises two critical questions. First, what are the consequences of a lack of engagement? And second, are the individual and organizational outcomes resulting from high levels of engagement always positive?

Our exploratory research suggests that the use of BlackBerrys, and other similar wireless handheld devices for sending and receiving e-mail, appears to amplify engagement behaviors, bounded at the extremes by under engagement and over engagement, for example from withdrawal to burnout. The purpose of this paper is two-fold. First, we address the questions raised by Masson and colleagues (2008) by proposing a non-linear model of engagement that captures both under and over-engagement. Second, we explore how BlackBerrys amplify the range of engaged behaviors. We believe that this study is important because it sits at the juncture between the old and new work paradigms. The new 'mobile- technology-enhanced' work paradigm, where 'always on' connectivity means the boundaries between the traditional workplace and workday are no longer clear. This technology can intensify and broaden our view of engagement because of the ease with which users can carry their work with them, and engage in work activities in locations and at times that were previously 'off limits' (Middleton, 2008). In this paper we begin by orienting the reader to the engagement literature. We then present our Engagement Model and discuss the antecedents to engagement behaviors. This is followed by exploring the impact of BlackBerry usage on engagement and a discussion of implications for practice.

Employee Engagement

The study of employee engagement has its origins in both the academic and practitioner literatures. Although there is still no consensus on how to measure engagement, Macey and Schneider (2008) distinguish between engagement as an attitude referring to a psychological state (e.g., involvement, commitment, attachment, mood), a trait (e.g., positive affect), and engagement as a behavior (e.g., time, intensity and direction of effort). In this study we are interested in engagement as behaviors because behavior is observable and arguably what organizations are most concerned about. There are benefits for the organization and individual of engaged behaviors. Research has consistently demonstrated that individuals who are “engaged” experience greater physical and psychological well-being (Ryan & Deci, 2000). The well-being of employees is important in its own right and also has benefits for organizations. In the aggregate, engaged employees can create higher business-unit customer loyalty (Gelade & Young, 2005; Pugh, Dietz, Wiley, & Brooks, 2002), higher profitability, higher productivity (Harter, Schmidt, & Hayes, 2002), and lower rates of turnover (Harter, Schmidt, & Keyes, 2003).

The Engagement Model

In most of the academic and practitioner literature engaged behavior presents an enticing picture for all stakeholders. However, the engagement concept, with its origins in the burnout literature, has generally been considered in a linear relationship with performance, sitting on the opposite pole to burnout (Maslach, Schaufeli, & Leiter, 2001). In contrast, we propose a more comprehensive model in which individual and organizational outcomes will be affected by the level of behavioral engagement in a non-linear pattern, moderated by both individual and situational factors. We suggest conceptualizing engagement as an inverted U-shaped curvilinear relationship with organizational outcomes. As Figure 1 illustrates, we propose engaged behavior ranges from under-engagement, through adaptive engagement, to over-engagement. Both under- and over-engagement can have negative consequences for the organization as well as the individual. Between the extremes is what is generally referred to as engagement and understood to deliver the positive outcomes described earlier. Coining the Greek prefix “eu” meaning good, we call this eu-engagement. Here the organization benefits from the investment of discretionary effort in terms of time, intensity and direction (Campbell, 1990; Kanfer, 1990; Towers-Perrin, 2007-2008)

Under-engagement. Theoretical support for under-engagement comes from self-determination theory. This theory distinguishes between engagement (autonomous regulation) and three other motivational states that can result in under-engaged behavior. These are controlled motivation, amotivation, and reactive autonomy (Meyer & Gagne, 2008). Controlled motivation can occur where there is perfunctory adherence to minimal role requirements. This is likely to have dysfunctional consequences in most situations, for example during union disputes where workers “work to rule”, quickly bringing organizations to their knees (Masson et al., 2008). Low levels of engaged behavior may also arise where an absence of motivation due to poor job-person fit in terms of capability and/or desire. Such situations can lead to a gradual loss of previously acquired skills” (Karasek, 1998: 34). A third type of under-engaged behavior may be a reaction against control or subversiveness, the intentions of which are concealed. Employees might give the impression of engagement (Goffman, 1959), being present “at work”, but not actually engaging in activities directed at delivering organizational outcomes. Arriving early and leaving late could signal an engaged behavior in terms of apparent time commitment to the job, but may disguise the fact that non-organizationally directed activities are occurring within that time, such as conducting a separate business in work time. At its extreme, subversive behaviors could include misuse of organizational intelligence, resources or even sabotage.

Over-engagement. In contrast, very high levels of engaged behavior can result in suboptimal outcomes for the organization. Despite the value attributed to engagement, a persistent state of high levels of engagement could be too much of a good thing. Maslach et al. (2001) implied from their work that very high levels of engagement can cause *burnout*. Energy turns to exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness. Hewlett and Luce (2006) describe a new breed of workers whose work has become all-consuming. The outrageous hours they put into their careers might appear to reflect an organization’s objective for absolute commitment. However, they warn, there are serious downsides, not only for the individual and the organization, but society in general. At an organizational level, the work behaviors of these highly engaged workers are *setting a standard* that they expect others to follow. Van Dyne and Ellis (2004) described a similar phenomenon as “job creep” where “discretionary contributions (such as OCB) become viewed as in-role obligations by supervisors and peers”. This pace may be unrealistic for others. Porter (2001) shows that such extreme engagement is very damaging to personal interactions and results in

additional workplace stress. This creates a culture that is not only unsustainable, but also strategically unappealing for a broad range of existing and potential employees making it difficult to retain and attract talent and diversity.

Hewlett and Luce (2006) showed this extreme-work model is wreaking havoc on private lives and taking a toll on health and well-being. Research in the work-family conflict literature found a positive relationship between hours worked and work family conflict (Gutek, Searle, & Klepa, 1991). Several other researchers have referred to *lack of recovery* when explaining why seemingly positive work behaviors that reflect high levels of engaged behaviors translate into poor well-being and health problems (e.g., Geurts, Kompier, Roxburgh, & Houtman, 2003; Sonnentag & Zijlstra, 2006).

In summary, over- as well as under-engaged behaviors can result in behaviors that are not functional for the individual, or the organization. Employees' health and well-being is a concern for the organization in terms of both social responsibility and cost considerations. In terms of output, workers may be less efficient, cannot be trusted, withhold information, focus on personal control rather than shared goals and place unreasonable demands on those around them (Porter, 2001). The consequences of under-engagement similarly have negative consequences for the organization as employees withdraw from work, colleagues and customers, hide or disguise their lack of or problematic outputs, misappropriate resources or maliciously inflict harm on the organization. At a higher level, the institutionalization of these behaviors can have strategic implications for the ability to attract as well as retain talent. This leads to the question of "what factors influence engagement behaviors?"

Antecedents

The antecedents, and consequences, of behavioral engagement can be located both in conditions under which people work and in the characteristics of the individuals themselves as illustrated in Figure 2.

Situational factors. At the macro level, social, cultural, and economic forces shape the organizational context. The pressure for engagement has come with *increasing global competition*. Fewer employees are required to do more and more with less (Hallowell, 2005). While much of the earlier work on engagement placed the *task* as central to engagement (2005; Kahn, 1990, 1992) the focus has moved more to the *conditions surrounding working*. Hackman & Oldham's job characteristics model (1989) implicates demands, autonomy, control, skill variety, social support and task feedback. The Gallup research (Harter et al., 2003) refers to 12 key working conditions (attributes of the work, the boss, the resources, coworkers and opportunities for career progression). Maslach, Schaufelli, and Leiter (2001) argued that six areas of work life that lead to burnout will also result in engagement (work-load, control, rewards, and recognition, community and social support, perceived fairness, and values). Organizational factors reflect organizational values. These values in turn shape the emotional and cognitive relationship that people develop with their work, which has implications for the level of engaged behavior. Once the particular level of engaged behaviors become the accepted *culture*, success in that organization requires adaptation to these behaviors (Porter & Kakabadse, 2006). This phenomenon could be explained by social contagion (Latane, 2000) which occurs when we change our behaviors as a consequence of social interaction with others, e.g., contacting coworkers out of work hours is not questioned and soon becomes an institutionalized norm. The ability to sustain high levels of engaged behavior also relates to opportunities provided by the context to *regulate effort expenditure* to prevent our exhaustion of resources (Sonnentag & Zijlstra, 2006; Zijlstra, 1996).

Individual factors. In addition to situational factors, employee engagement is also affected by individual factors. We do not simply respond to the work setting; rather, we bring unique qualities to the relationship (Maslach et al., 2001). These factors include *demographic* variables (including age, gender, level of education and marital status, dependents), as well as other personal characteristics that may all influence our capacity, willingness and desire to engage. The degree of *importance that work plays* in our lives, has been shown to influence the level of engagement. Research by Carr, Boyar, & Gregory (2008) showed that when individuals view work as being more central to their lives, higher levels of engagement were easier to achieve. *Workaholic behaviors*, voluntarily spending more time in the work role beyond what is required at the expense of others can be both functional and dysfunctional (Scott, Moore, & Miceli, 1997). A meta-analysis by Brown (1996) found that employees who rate high on *job involvement* are inclined to demonstrate more job effort. Desire to put in extra effort may also stem from *early life experiences* (Robinson, 1989, 1998) or may provide an *emotional respite* from current situations (Brett & Stroh, 2003). Rothbard (2001) implicates *disposition factors* in determining the degree to which we engage with work. Consistent with self-concordance

theory (Sheldon & Elliot, 1999) we are willingly contribute our time when our roles are consistent with our *ambition*. Buck, Lee, MacDermid, & Smith (2000) highlighted that definitions of success and *identity* are intertwined and that we often evaluate ourselves on the basis of our work accomplishments, assuming that putting in extra effort, such as working long hours and sacrificing personal time are accepted and expected to achieve success and advancement in today's competitive business environment. Recognising the multiple influences on engagement, there is value in conceptualizing engagement as a continuum, accommodating both the benefits and the "darker sides" of engagement. Whilst eu-engagement is the desirable end goal of any organization, we do not lose sight of the fact that both too much as well as too little of a good thing can be dysfunctional. Based on a case study of BlackBerry users, we examine how BlackBerry use can amplify both adaptive and dysfunctional engagement as its use interacts with both situational and individual factors. We begin by introducing the role of technology.

A Case Study: BlackBerrys and Engagement

Technology has raised the engagement expectation base line. Contextually, the combination of global commerce and commerce-enabling technology has raised the bar for engagement. Firstly, in the knowledge era, information and communication technologies (ICTs) facilitate the ability to generate and transport data/information, creating the *expectation* that people need, or are obliged to use, the data/information faster (Hind, 1998). Second, the focus on short-term benefits and shareholder's value has produced increasingly lean, encouraging cultures that *reward* people who work very hard, spend longer hours at work and are connected to the organization 24/7 (Porter & Kakabadse, 2006). This has meant that the extra effort required to do one's job, including working longer hours, use of discretionary time and multi-tasking, is both a *consequence* of technology use and a *condition* in which further adoption of technology is a means of dealing with increasing expectations.

Use of the technology. Central in understanding the relationship between BlackBerrys and behavioral engagement is recognizing that these devices are not just objective, external tools that have a deterministic impact. Users shape the technology as they use it in particular contexts (Orlikowski, 1992: 405). The emerging literature on technology addiction describes how situational and individual factors can lead to excessive technology use (Porter & Kakabadse, 2003). The theory of *flow* (Csikszentmihalyi, 1990) holds that information technologies facilitate a mind state in which people are so intensely involved in an activity that nothing else seems to matter. This encourages continued use and a loss of sense of the time involved (Sinha, 1999) even at great cost. In competitive environments where work frequently requires extensive use of technology, and devices such as BlackBerrys can be kept on one's person, there is further encouragement of excess use (Porter & Kakabadse, 2006). This is exacerbated in the extreme cases where the users *define their persona* based on high levels of BlackBerry activity (Kakabadse, Kouzmin, & Kakabadse, 2000).

While the compounding effect of BlackBerrys and engagement behaviors can drive productivity and efficiency, with users available to customers and coworkers 24/7, these behaviors can also foster less adaptive behaviors and resentment, and ultimately negate the short-term benefits for the organization. Our exploratory study of a large global financial services firm illustrates how BlackBerry use has enabled higher levels of engagement in terms of time, intensity and direction to both positive and negative effect. These effects are summarized by their effect on the individual and the organization as illustrated in Table 1.

METHODOLOGY

Semi-structured interviews were conducted with BlackBerry users in a large financial services firm, headquartered in Europe. Two interviewers were present for each interview to triangulate and seek differing perspectives on content interpretation. On-site interviews enabled the researchers to gather contextual information pertaining to the work environment (Cresswell, 1998; Yin, 2003). All interviews were taped and the transcripts coded using NVivo. The coding was developed as the transcripts were read enabling the analysis to be formulated from the ground up and to avoid pre-conceived coding criteria from influencing the findings (Glaser & Strauss, 1967). Contextual material was enhanced by examining published material together with follow-up emails and discussions with participants.

Case Background. EuroFin Australia¹ provides a wide range of financial products to its corporate, institutional and retail clients. As a global bank EuroFin has activity 24/7, with employees in constant

¹ Eurofin is a term coined to disguise the identity of the Financial Services firm used in this study

communication with clients and colleagues worldwide. Like most financial firms, EuroFin is characterised by a high performance work ethic where it is expected that employees will work long hours and be responsive to the market and customer needs. The financial services sector is a highly competitive, global industry where the ability to attract and retain top talent is a strategic imperative. High levels of performance are handsomely rewarded. Like many subsidiaries, EuroFin Australia faces the unique challenge of operating outside the time zone of its European-based parent and the trading hours of the world's largest stock exchanges. The research study was designed to gain an understanding of 1) the impact of BlackBerrys on user behaviour, 2) how the users attribute value to the BlackBerry.

BlackBerrys and Eu-Engagement. BlackBerry devices were clearly seen by users as enabling them to use their time more efficiently to provide more responsive service to customers. *"Where previously things would move that would've halted for a day because you have to wait until Australian night again till you can get in touch with them... They keep moving... very good for clients".* Another manager reflected *"It allows me to make quicker decisions and you don't need to wait long for the response".* Work was carried out in places and times previously unavailable for work, increasing productivity by capturing otherwise lost time, *"On the bus you can clear all your emails on the way to work so that you can get to work and you're able to hit the ground running."* *"I would work definitely an hour, at least an hour or more a day than previously."* BlackBerrys facilitated engagement where previously a compromise might have been required to achieve work/life balance by enabling temporal and spatial flexibility. As one employee said: *"It's just hugely important to me that I'm there three or four nights to see [my two year old] before he goes to bed. I leave the office at 4pm, go home, spend a bit of time with my son, have dinner with my wife... then pull out the BlackBerry and work until 10 or 11pm"*

Use of the device also made it easier to engage others. As one of the managers reported, *"This tool improves the collaboration between the actors of a given project of activity. The managers feel much more at ease reaching their co-workers – it is easier to organize meetings and it is easier to react and keep track."* Conversely, it assisted subordinates to engage with their managers, *"Managers have more requests from their co-workers because although people hesitate to contact their manager on the phone when they are away from the office, they do not hesitate to send an email"*

Despite the affection many users clearly had for their BlackBerrys, there were also signs of dysfunctional engagement made possible by the device. Many users recognized potential downsides, and managed them by, for example, setting their own boundaries around usage. Others talked of third parties having a problem, but their language quickly turned to referring to their own behaviors. Some admitted that their BlackBerry enabled over engagement, caused problems for other people, but consistent with Middleton's (2007) findings, others dismissed the negative effects of their own behaviors on themselves or others.

BlackBerrys and Dysfunctional Engagement. One of the most obvious advantages of BlackBerry is the ease with which people can engage in communications anywhere, anytime. However, this can result in problems with both quality and quantity: As one manager reported *"What BlackBerrys have done is just increased the volume of email, because people know that they're always contactable. There's lots of communication, but it's not very efficient, not very thought out because you're just clearing your emails on the BlackBerry on the way to and from work".* Another manager supported this view *"People use email to degrees of excess which are just extraordinary. Copying people in on stuff that they don't need to be copied on. Poorly written communications ... people just do a dump of information"* And the opportunity for face-to-face interactions can be lost *"You've got people sending copious amounts of emails when they could pick up the phone or turn around and talk to the person sitting behind them".* Despite the investment of effort, the end result can defeat the purpose, because as one manager put it *"Too much information kills communication"* As our earlier discussion on social contagion alluded to, social interaction can lead to an escalation of what appears to be engagement, but in reality is destructive behavior for both the well-being of individuals and organizations, particularly when a worker's identity is centered around work. One executive described the behavior of senior managers *"They were in competition with each other to see who could cover the most emails in a day"... if someone went home and switched off their BlackBerry at say 8pm, then they switched on the next morning and found out that all their colleagues had been emailing each other and doing all this stuff they individually perceived that they would be seen to be not working as hard and not as dedicated as these people who had been working up until midnight sending emails."*

The constant connectivity, while feeding the desire of users to “keep on top of things” to be productive, could easily become a double-edged sword, providing no opportunity for recovery and the ability to contribute effectively. Comments such as, “[*Even on holidays*] I feel compelled to carry it all day long ... there are no more complete breaks. It is a sort of permanent connection that did not exist before”, “Previously when I caught transport to and from work, I would’ve read the paper, read a book...” “You just can’t get away from it” suggested that some executives resented the constant high levels of engagement. And these effects caused problems for significant others. “My wife has made the comment that it’s the last thing I see at night and the first thing I see in the morning, which is somehow not good” “My wife and my son absolutely hate it” “It definitely detracts from your home life.” Even more extreme “my wife threatened to throw it in the toilet repeatedly.” Excessive engagement can also frustrate co-workers in meetings “It is very disagreeable and counterproductive in meetings ...and disturbs general attention.”...“I find it distracting at meetings ... you obviously switch off to whatever’s being said” reducing the effectiveness of meetings for users and nonusers. Interestingly, while use of the device provides for significant potential for collaboration, facilitating coordination and the sharing of information, some identified a reduction in delegation “Previously, going on holidays meant cutting off from work and transferring the responsibilities. With BlackBerry, decision making stays with the same person and there is no delegation”. At the other end of the scale, fear of being constantly connected can foster under-engagement. This can be manifest in the unwillingness to adopt the technology, reflected in comments such as “I don’t want to have one.” “I don’t want to be contactable 24/7”. “I prefer to finish my work during the hours that I’m at work... there’s better things in life than being at work all the time”. The down side of this is that non-users amongst a “community of users”, maybe excluded from certain interactions. Conversely, clever timing of email distribution can enable the user to give the impression of working that disguises disengagement in time, intensity and direction.

DISCUSSION AND CONCLUSIONS

Engaged behavior is clearly a desirable focus for organizational attention. However, as this paper has begun to explore, it is important to take a broader perspective on engagement that encompasses its potential downsides and adaptive engagement behaviors if we are to manage it strategically. By proposing an Engagement Model we have captured how it might be possible to not only have insufficient engagement, but also to have too much of a good thing. In particular, by examining engagement behaviors as enabled by technology, it is possible to see the amplification of engaged behaviors. The investment of extra effort may be lauded by the organization as they achieve efficiencies and productivity gains, but without effective management of the situational factors that foster over engagement this advantage may sour. Apart from the social responsibility to individuals and cost considerations of ineffective performance, lack of attention to these factors may have serious strategic implications in terms of the ability of the organization to attract, retain and progress talent. This is particularly relevant in light of the research that shows that 36% of highly engaged workers in the 25-34 age group wanted to leave their jobs within two years (Hewlett & Luce, 2006). This has significant consequences for succession planning of professionals. By using a case study of BlackBerry use to illustrate a range of engaged behaviors, we are recognizing an emerging factor that will have an increasing and ubiquitous influence on the nature of work. BlackBerrys and similar technologies are having a fundamental impact on how we can engage with work in space and time, and on the organizational expectations engaged behaviors. As competitive advantage is increasingly driven by the flow of information, the conditions surrounding work are being altered by the capacity of technology to change how we interact with work. By affecting how, when and where we engage with work, the boundaries between work and non-work life are blurring, shifting our understanding of the work paradigm. Understanding the intersection of technology and work effort will therefore become a new priority in our search for sources of competitive advantage.

As Hewlett and Luce (2006) remind us, the culture that celebrates the extreme ethos today may tire of it—quite literally—tomorrow. At a minimum, senior executives should think carefully about the work behaviors they are rewarding, encouraging, or requiring. More than anything, the signals they send will determine whether they are fostering eu-engagement or excessive engagement, and whether those jobs remain exhilarating or simply become exhausting. This preliminary research investigated the important, yet not well-understood topics of both engagement and ubiquitous computing. Further investigation of these topics is warranted.

REFERENCES

- Brett, J. M., & Stroh, L. K. (2003). Working 61 Plus Hours a Week: Why Do Managers Do It? *Journal of Applied Psychology, 88*(1), 67-78.
- Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin, 120*, 235-255.
- Buck, M., Lee, M. D., MacDermid, S., & Smith, S. (2000). Reduced-load work and the experience of time among professionals and managers: Implications for personal and organizational life. In C. L. Cooper & D. M. Rousseau (Eds.), *Trends in organizational behavior* (Vol. 7: Time in organizational behavior, pp. 13-35). Brisbane, Australia: Wiley.
- Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M. D. Dunnett & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 1, pp. 687-732). Palo Alto, CA: Consulting Psychologists Press.
- Campbell, J. P., & Pritchard, R. D. (1976). *Motivation theory in industrial and organizational psychology* (2nd ed.). Chicago: Rand-McNally.
- Carr, J. C., Boyar, S. L., & Gregory, B. T. (2008). The moderating effect of work-family centrality on work-family conflict, organizational attitudes, and turnover behavior. *Journal of Management, 34*, 244-262.
- Cresswell, J. W. (1998). *Qualitative Enquiry and Research Design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York, NY: Harper Row.
- Erickson, T. J. (2005). Testimony submitted before the US Senate Committee on Health, Education, Labour and Pensions, May 26.
- Gallup. (2008). *Employee Engagement*. Retrieved 27 June, 2008, from <http://www.gallup.com/consulting/52/Employee-Engagement.aspx>
- Gelade, G. A., & Young, S. (2005). Test of a service profit chain model in the retail banking sector. *Journal of Occupational and Organizational Psychology, 78*, 1-22.
- Geurts, S. A. E., Kompier, M. A. J., Roxburgh, S., & Houtman, I. L. D. (2003). Does work-home interference mediate the relationship between workload and well-being? A multi-sample analysis. *Journal of Vocational Behavior, 63*, 532-559.
- Glaser, B. G., & Strauss, A. I. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. New York: Doubleday.
- Gutek, G., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology, 76*, 560-568.
- Hackman, J. R., & Oldham, G. (1989). *Work redesign*. Reading, MA: Addison-Wesley.
- Hallowell, E. M. (2005). Why smart people underperform. *Harvard Business Review, Jan*(Jan), 55-62.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*(2), 268-279.
- Harter, J. K., Schmidt, F. L., & Keyes, C. L. M. (2003). Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. In C. L. Keyes & J. Haidt (Eds.), *Flourishing: The positive person and the good life* (pp. 205-224). Washington, DC: American Psychological Society.
- Hewlett, S. A., & Luce, C. B. (2006). Extreme jobs. The dangerous allure of the 70-hour work week. *Harvard Business Review, Dec*(12), 49-59.
- Hind, P. (1998). Captured by technology. *CIO Magazine, September*, 22-23.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692-724.
- Kahn, W. A. (1992). To be fully there: Psychological presence at work. *Human Relations, 45*, 321-349.
- Kakabadse, N. K., Kouzmin, A., & Kakabadse, A. K. (2000). Technoness: over identification with information technology and its impact on employees and managerial effectiveness. In N. K. Kakabadse & A. K. Kakabadse (Eds.), *Futures: Leading change through information systems* (pp. 259-296). Aldershot: Ashgate Publishing.
- Kanfer, R. (1990). Motivation theory and industrial/organizational psychology. In M. D. Dunnett & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, pp. 75-170). Palo Alto, CA: Consulting Psychologists Press.

- Karasek, R. A. (1998). Demand/control model: a social, emotional and psychological approach to stress risk and active behavior development. In J. M. Stellman (Ed.), *Encyclopaedia of occupational health and safety* (pp. 34.36-34.14). Geneva: International labour Office.
- Latane, G. (Ed.). (2000). *Pressure to uniformity and the evolution of cultural norms: Modeling dynamic social impact*. Washington, D.C.: The American Psychological Association.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1*, 3-30.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397-422.
- Masson, R. C., Royal, M. A., Agnew, T. G., & Fine, S. (2008). Leveraging employee engagement: The practical implications. *Industrial and Organizational Psychology, 1*, 56-59.
- Meyer, J. P., & Gagne, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology, 1*, 60-62.
- Middleton, C. A. (2008). Do Mobile Technologies Enable Work-Life Balance? Dual Perspectives on BlackBerry Usage for Supplemental Work. In D. Hislop (Ed.), *Mobility and Technology in the Workplace*: Routledge.
- Middleton, C. S. (2007). Illusions of balance and control in an always-on environment: A case study of BlackBerry users. *Continuum: Journal of Media and Cultural Studies, 21*(2), 165-178.
- Orlikowski, W. (1992). The duality of technology: Rethinking of the concept of technology in organizations. *Organization Science, 3*(3), 398-427.
- Porter, G. (2001). Workaholic tendencies and the high potential for stress among co-workers. *International Journal of Stress Management, 8*(2), 147-164.
- Porter, G., & Kakabadse, N. K. (2003, June). *An addictive perspective on technology and work*. Paper presented at the International Human Resource Management Conference, Limerick.
- Porter, G., & Kakabadse, N. K. (2006). HRM perspectives on addiction to technology and work. *Journal of Management Development, 25*(6), 535-560.
- Pugh, S. D., Dietz, J., Wiley, J. W., & Brooks, S. (2002). Driving service effectiveness through employee-customer linkages. *Academy of Management Executive, 16*(4), 73-84.
- Robinson, B. E. (1989). *Work Addiction*. Deerfield Beach, FL: Health Communications.
- Robinson, B. E. (1998). *Chained to the desk: A guidebook for workaholics, their partners and children, and the clinicians who treat them*. New York, NY: New York University Press.
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46*, 655-730.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.
- Scott, K., Moore, K., & Miceli, M. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations, 50*, 287-314.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*, 482-497.
- Sinha, I. (1999). *The cyber gypsies: Love, life and travels on the electronic frontier*. London: Scribener.
- Sonnentag, S., & Zijlstra, F. R. H. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being and fatigue. *Journal of Applied Psychology, 91*(2), 330-350.
- Towers-Perrin. (2007-2008). *Closing the Engagement Gap: A road map for driving superior business performance*. Stamford, CT.
- van Dyne, L., & Ellis, J. B. (2004). Job creep: A reactance theory perspective on organizational citizenship behavior as over-fulfillment of obligations. In J. A. M. Coyle-Shapiro, L. M. Shore, M. S. Taylor & L. E. Tetrick (Eds.), *The employment relationship: Examining psychological and contextual perspectives* (pp. 181-205). Oxford, UK: Oxford University Press.
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications, USA.
- Zijlstra, F. R. H. (1996). Effort as energy regulation. In W. B. S. & Dutke (Eds.), *Processes of the molar regulation of behavior* (pp. 219-235). Berlin, Germany: Pabst Science Publishers.

Table 1: Examples of BlackBerry enabled behaviors at the individual and organizational level associated with dysfunctional engagement (under and over-engagement) and functional engagement (eu-engagement)

	Level of impact	Levels of Engagement		
		Under engagement (dysfunctional)	Eu-Engagement (functional)	Over engagement (dysfunctional)
BlackBerry enabled behaviors	Individual	<ul style="list-style-type: none"> • Fear of loss of control/ addiction • Boundary erection 	<ul style="list-style-type: none"> • Autonomy • Control • Flexibility • Involvement • Boundary management • Self-efficacy 	<ul style="list-style-type: none"> • Workaholic/addiction • Dangerous use • Burnout • Antisocial behaviors • Work-life conflict • Lack of recovery time
	Organizational	<ul style="list-style-type: none"> • Exclusion • Subterfuge • Misrepresentation • Unavailability 	<ul style="list-style-type: none"> • Proactivity • Coordination • Collaboration • Responsiveness – internal & external • Feedback • Work redesign 	<ul style="list-style-type: none"> • Diffusion, superficial • Job creep • Disruptive • Role modeling excess • Over-communication • Reactivity • Absent presence • Reduced delegation

Figure 1: The Engagement Curve illustrating the amplifying effect of BlackBerry usage

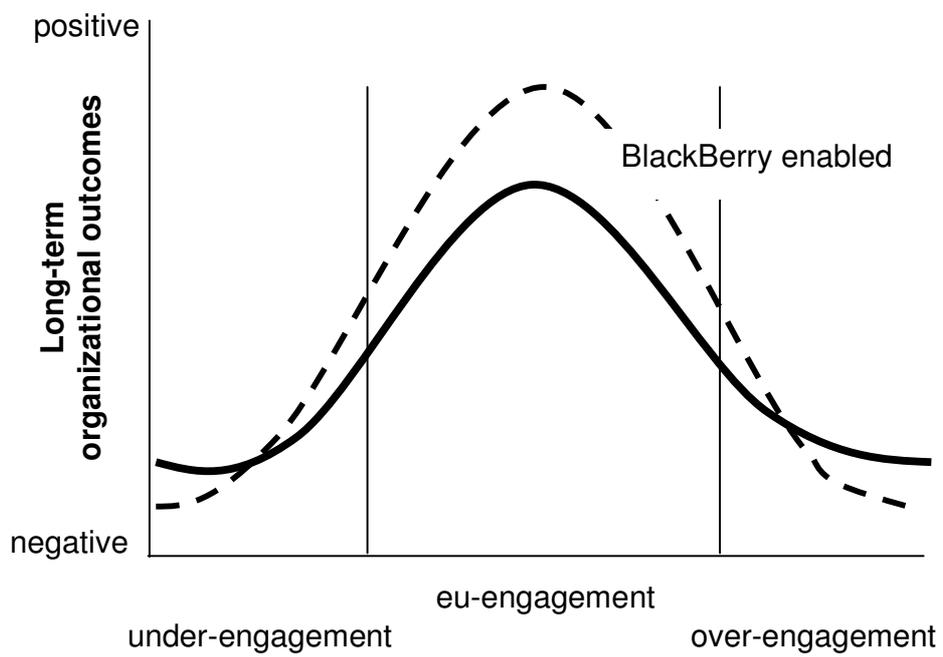


Figure 2: Engagement and its relationship with key situational and individual factors

