Chapter 6.8 Ubiquitous Connectivity & Work-Related Stress

J. Ramsay University of the West of Scotland, UK

M. Hair University of the West of Scotland, UK

> **K. V. Renaud** University of Glasgow, UK

ABSTRACT

The way humans interact with one another in the 21st Century has been markedly influenced by the integration of a number of different communication technologies into everyday life, and the pace of communication has increased hugely over the past twenty-five years. This chapter introduces work by the authors that considers the ways one communication-based technology, namely e-mail, has impacted workers' "thinking time", and become both a "workplace stressor" and an indispensable communications tool. Our research involved both a longitudinal exploration (three months) of the daily e-mail interactions of a number of workers, and a survey of individuals' perceptions of how e-mail influences their communication behaviour in general, and their work-related communication in particular. Initial findings, in the form of individual differences, are reported here. The findings are presented in relation to the way workplace stressors have changed over the past quarter century.

INTRODUCTION

The 19th century citizen inhabited a very different world from the one we know. A discussion of all the differences, and reasons for these differences, is ouside the scope of this chapter, but we will consider the impact of the growth and availability of a variety of communication media. Whereas this growth is almost always perceived to be a positive aid to communication (Walsh et al., 2000), some warning bells are ringing. Cooper and Jackson (1997) found that the use of information technology had had a knock-on effect on work pace and also led to information overload. On the one hand, the potential to be permanently contactable in a variety of ways (phone, e-mail, Web) is well within the reach of most workers of the western world. On the other hand, workplace stress is at record levels (Rudavsky, 2005; Heggy, 2006) and it is just possible that this permanent connectivity is a contributor. Kock (2001) argues that we need to determine the effects of technologies, such as e-mail, on humans. In this chapter, we will consider the question: "Does ever increasing and permanent connectivity, in addition to its obvious benefits, also have a dark side?"

A SHORT HISTORY OF MODERN COMMUNICATION

The face of communication has changed drastically in the last quarter of a century.

The evolution of what is recognised as modern technology-based human-to-human communication has its roots in the 1960s. The Internet grew out of the U.S. defence department's Advanced Research Projects Agency Network (ARPANET), which emerged in the late 1960s. By the early 1970s, ARPANET connected a number of U.S. research institutes working on defence-funded activities. As the network expanded over the years, and with the move to Internet protocol (IP) networks, the global Internet was born. The majority of the emerging *public* technology was still for use *outside of* the office, for example, handheld calculators (classroom), Space Invader machines (gaming arcades), Pac-Man and Tetris games (home) and the arrival of the Sinclair ZX81 in 1981 (home).

Great strides were also made in communications technology. The maintenance of relationships is one of the most basic of human needs (Maslow, 1943). Anything that facilitates or eases the building or strengthening of relationships is bound to succeed.

Up to the first half of the 20th century people communicated either by conversation, letter, or, rarely, by telegram. This is reflected in the books of the era. *Enquire Within Upon Everything*, the celebrated Victorian self-help guide published in 1884, gives the following social guidance:

If you are not a good writer it is advisable to use the best ink, paper, and pens. For although they may not alter the character of your handwriting, yet they will assist to make your writing look better. (p. 358)

It is doubtful that 21st century employees would aspire to conform to this guideline because the world they inhabit has such different norms and values. A variety of communication media choices is now at our disposal: letter, telephone, fax, SMS or e-mail. Much communication appears to have migrated from traditional conversation or relatively slow letter exchanges, where rigid rules dictate format and language usage, to one of the other, more immediate, more informal, media. Moreover, any letter that *is* sent is unlikely to be handwritten.

In considering the impact of this new era of ambient communication on our lives, it is instructive to go back to the late 19th century to examine the literature of the time to see what kind of nirvana or torment authors were predicting. *Looking Backward*, written in 1887 by Edward Bellamy, and first published in 1888, recounts the tale of a man who wakes up from the 19th Century to find himself in the 21st Century, to witness a world of unprecedented interpersonal accord and harmony.

Although Bellamy may have overstated the case, sufficient material progress has neverthe-

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/ubiquitous-connectivity-work-related-

stress/37852

Related Content

Algorithms to Resolve Conflict in Multiuser Context Aware Ubiquitous Environment

Thyagaraju G.S.and U.P. Kulkarni (2012). International Journal of Advanced Pervasive and Ubiquitous Computing (pp. 42-62).

www.irma-international.org/article/algorithms-resolve-conflict-multiuser-context/73651

An Ambient Intelligence Based Multi-Agent System for Alzheimer Health Care

Dante I. Tapiaand Juan M. Corchado (2010). *Ubiquitous and Pervasive Computing: Concepts, Methodologies, Tools, and Applications (pp. 833-844).* www.irma-international.org/chapter/ambient-intelligence-based-multi-agent/37822

Real-Time Location Tracking Mashup for Enterprise

Louenas Hamdi, Rama Gurramand Samir Raiyani (2008). *Handbook of Research on Ubiquitous Computing Technology for Real Time Enterprises (pp. 567-573).* www.irma-international.org/chapter/real-time-location-tracking-mashup/21786

Design and Development of Member Platform of Public Platform for Service Outsourcing Association

Ran Gaoand Liu Ye (2018). International Journal of Advanced Pervasive and Ubiquitous Computing (pp. 1-22).

www.irma-international.org/article/design-and-development-of-member-platform-of-public-platform-for-serviceoutsourcing-association/199773

Cultural Dimension in the Future of Pervasive Computing

B.K. Mangarajand Upali Aparajita (2010). *Ubiquitous and Pervasive Computing: Concepts, Methodologies, Tools, and Applications (pp. 974-992).*

www.irma-international.org/chapter/cultural-dimension-future-pervasive-computing/37831