Chapter 3.17

Teleworker's Security Risks Minimized with Informal Online Information Technology Communities of Practice

Loreen Marie Powell
Bloomsburg University of Pennsylvania, USA

INTRODUCTION

The advancements of technology have altered the way many small businesses operate in the United States of America (USA) (Butcher-Powell, 2006). Small businesses have been forced to embrace technology or lose valuable employees and business. As such, many small businesses have merged to wireless networks and adopted various forms of

telework. Today, it is estimated that more than 60% of the workforce are teleworkers (Butcher-Powell, 2006; DecisionOne, 2002). While moving to a remote workforce is good for small businesses, it also places a substantial amount of security risks upon the small business. Butcher-Powell (2006) documented some of the security risks associated with corporations employing a remote workforce, indicating that teleworker's lack of information systems and security training can compromise the corporation's network.

The study investigates one particular method for aiding teleworker's: informal information technology communities of practice in cyberspace. One hundred and forty four teleworker's were surveyed on what sort of IT-related activities they devote time to, how much problem-solving they attempt via technology discussion groups with respect to those activities, and their perceived community and organizational benefits to participating in such discussion groups. The study found significant differences in perceived value of technology discussion groups among teleworkers.

BACKGROUND

Telework

Telework is often defined as an agreed upon working arrangement whereby the employee is permitted to officially perform their job tasks in another location other than the typical place of business (United States Department of Defense, n.d.). Most telecommunication elements include laptop computers, the Internet, and various wireless routers, a firewall, and a virtual private network (VPN). Each teleworker is typically provided with a laptop that contains locally installed corporate software. Each laptop typically uses a client and Microsoft's Point-to-Point Transfer Protocol (PPTP) to enable remote access to the small business's network. The client is configured to allow TCP/IP connections on the small business's network as needed (Butcher-Powell, 2006). The client contains a designated Internet protocol (IP) address, and a valid log-on user name and password needed to establish a relationship with the small business's network. The relationship between the client and the small business's network is established by utilizing client software to connect to the small business's firewall via tunneling. Once the client is authenticated, the teleworker gains access into the network.

Problems with Telework

While telework offers substantial benefits, including reduced overhead costs and expanded labor pools without geographic restrictions (Carlson, 2000; Hirsh, 2004; Mehlman, 2002; Motskula, 2001), it also offers substantial security risks to small businesses. One of the largest security risks associated with telework is the teleworkers lack of IT skills and training (Hirsch, 2002; Mehlman, 2002). Teleworkers lack of IT skills and knowledge are costing small businesses thousands of dollars and their business. Research has shown that teleworkers do not have an understanding of authentication, data tampering, encryption, firewalls, and scavenging. Therefore, many corporations have conducted IT training courses for teleworkers. However, the research has also shown that IT training for teleworkers is not enough. First, many small business cannot afford training. Second, teleworkers have been resistant to IT training (Butcher-Powell, 2006). Third, the training is not specific enough. As such, small businesses are seeking for an additional solution. One possible solution is to create informal online communities of practices (CoPs) for teleworkers (McDermott, 2000; Wenger, McDermott, & Snyder, 2002).

Communities of Practice

CoPs were first used by Wenger in 1991 and popularized more widely in two major works (Wenger et al., 2000, 2002). CoPs are the idea of sharing information for the purpose of learning from one another within a small group (Mitchell, 2002). Traditionally CoPs were created spontaneously in a workplace. However, today, there has been increasing interest in the creation of teleworking CoPs (Cameron & Powell, 2006; Snyder, 2000; Wenger et al., 2002).

3 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/teleworker-security-risks-minimized-informal/54806

Related Content

The Taxonomy of Information Societies
Andrew S. Targowski (2005). *Global Information Society: Operating Information Systems in a Dynamic Global Business Environment (pp. 1-26).*
www.irma-international.org/chapter/taxonomy-information-societies/18933

Serving Customers in a Hybrid World: Multi-Channel Strategies in Retailing
Claas Mulle-Lankenau, Kai Wehmeyerand Stefan Klein (2005). *Managing Business in a Multi-Channel World: Success Factors for E-Business (pp. 183-203).*
www.irma-international.org/chapter/serving-customers-hybrid-world/25691

The Essential Leadership Wisdom of the Bhagavad Gita
Patrick Kim Cheng Lowand Balakrishnan Muniapan (2011). *International Journal of Asian Business and Information Management (pp. 1-9).*
www.irma-international.org/article/essential-leadership-wisdom-bhagavad-gita/61120

Organizational Capabilities and Knowledge Management Success: Evidences from Two Mid-Sized Indian IT Companies
Satyendra C. Pandey (2016). *International Journal of Asian Business and Information Management (pp. 18-29).*
www.irma-international.org/article/organizational-capabilities-and-knowledge-management-success/154925

Building Acquisition Management Capability to Improve Firm Performance in Acquisitions: An ASEAN Context
Mohamad Oki Ramadhana, Sri Moertiningsih Adioetomo, Biakman Irbansyahand Yanki Hartijasti (2022). *International Journal of Asian Business and Information Management (pp. 1-20).*
www.irma-international.org/article/building-acquisition-management-capability-to-improve-firm-performance-in-acquisitions/289650