INTRODUCTION

Anyone who has said “IT doesn’t matter,” must not have a wireless personal digital assistant (PDA). For people connected to communications and information systems, IT (information technology) can have a profound – and not always positive – effect. Many years ago, The Academy of Management Executive published a survey (Veiga & Dechant, 1997, p. 77) describing the “wired world woes” of 350 executives from major corporations. The study revealed several common frustrations, with more than half expressing concern that:

- IT has not made their lives better, just busier
- IT wastes as much time as it saves
- IT has caused work relationships to deteriorate
- IT means serious information redundancy and overload
- IT means my office is always with me 24 hours a day.

In today’s wireless world, these concerns resonate even more loudly. Conference rooms and private offices are no longer safe havens for meetings; they are continually interrupted with a barrage of buzzing messages. Privacy and courtesy are victims of access and immediacy. The Wall Street Journal coined the term “surfer’s voice,” to describe the inattention
Evident in a person’s voice while talking on the telephone and communicating electronically (Berman, 2003).

This goes beyond inconvenience to questions of corporate governance. With the increasing use of the Internet, the availability of information has raised the awareness – if not the execution – of corporations’ activities. Environmental practices, fiscal integrity, international performance and philanthropic work are easily scrutinized and questioned with the broad access afforded by networks. Customer satisfaction complaints may be widely discussed online by users before the company even realizes there is a problem, and that time is working against it.

In addition, the reliance of individuals and organizations on IT makes them vulnerable to system failures. This vulnerability is heightened by broad access. Consider the pharmaceutical company sending an e-mail message to users of an anti-depressant, essentially publishing the names of these patients (Federal Trade Commission, 2002; Rothfeder, 2006). The ripple effect of such a problem is hard to overcome.

Such issues are exacerbated when one considers the next wave of computing, called “pervasive computing,” whereby “ubiquitous and mobile systems interact seamlessly in everyday life (Soares, 2002).” The computer chip embedded in your garment’s care tag will give care instructions to your washing machine, while your refrigerator will manage the inventory of its contents and the energy consumption of your home. The grocery cart will tempt you with advertisements that change as you walk through the aisles of the store – pervasive means anytime, anywhere. Supermarkets already know what you buy and when you shop. At what point does pervasive become invasive? Intrusive? Inconvenient? Vulnerable?

Of course, IT enables positive change. Examples of improvements in productivity, cost structures, value propositions, and customer relations abound. As (Clark, 2006) points out, handheld devices and wearable technologies can improve processes: “Data accessibility, immediate processing, and virtual office capabilities provide positive returns.” This is why such technologies are adopted. The challenge is to find ways to achieve such desirable changes and address the negative effects that can result.

One useful framework distinguishes between the direct, easily anticipated, first-level productivity effects and the second-level social system effects which are harder to measure and are generally more profound (Sproull & Keisler, 1991). The social system results arise when the ways in which people interact are changed by IT. By transcending the limitations of time to achieve immediacy and overcoming the boundaries of space to provide access, pervasive computing and similar applications can make a significant difference in the way people live and work.

STRATEGIC APPROACH

The problem is to anticipate the social system changes so that they can be used to advantage and prevent them from becoming issues. This can be done with a common technique used in strategic management. “SWOT” analysis helps an organization evaluate its internal strengths (S) and weaknesses (W) vis-à-vis its competition, as well as the external opportunities (O) and threats (T) perceived in the organization’s environment. Often the evaluation stops with a list that is summarized as bullet points in a presentation. A better approach poses strengths and weaknesses against opportunities and threats in a matrix (Khalil, 2000). In this format, the analyst is encouraged to consider strategies which:

- Leverage strengths to pursue opportunities
- Mitigate weaknesses to pursue opportunities
- Leverage strengths to neutralize threats
- Mitigate weaknesses to neutralize threats.

A similar strategic approach might be useful in identifying social system effects introduced by IT, as simply:
Schools of Thought in Research into End-User Computing Success
www.igi-global.com/article/schools-thought-research-into-end/3717?camid=4v1a

Information Systems Service Quality, Zone of Tolerance, and User Satisfaction
www.igi-global.com/article/information-systems-service-quality-zone/65095?camid=4v1a