

TECHNOLOGICAL CHANGE IN LIBRARIES: THE EVOLUTION OF TECHNO STRESS

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ABSTRACT

The technological revolution has undoubtedly brought along many changes in the workplace today. Although it has allowed work to be carried out faster and more efficient, many employees are not comfortable with the implementation of technology as it involves change and uncertainty. As a result, they experience additional stress known as technostress which may have negative consequences in the organisation. This conceptual paper highlights the issues of technostress and coping strategies, particularly in the library setting.

Keyword(s): Technology change, Libraries, Technostress, Multitasking Madness, Information overload.

INTRODUCTION:

Technology changes the way people work and learn. As the role of technology is being defined and is constantly being improved, change is inevitable (Davis-Millis, 1998; Brand, 2000). As a result, those involved in higher education have to find ways to adapt to technological change. Administrators, faculty, librarians, and students should define the role of technology for the purposes of (1) sharing new ideas and techniques for teaching and learning; (2) encouraging enthusiasm and innovativeness; and (3) learning about opportunities and challenges, and how to deal with them (Landsberger, 2001).

Since the emergence of information technology, the gap between information 'haves' and 'have-nots' has been broadening: the information rich become richer, while the information poor are poorer. This situation contributes to various issues related to individuals and society.

The move to the Information Age, with its changes and need for adaptation to technology, has been rapid and stressful for many people. While many people have increased their usage of technology and are comfortable with it, many others still do not use much technology and are not comfortable using it when they must do so. For those who are not amenable to change, who find it difficult to adapt, there are often a variety of responses or results. One type of response is called technostress. Technostress is the inability to adapt to or cope with new computer technologies which reveals itself in one of two ways: (1) computer users struggle to accept the technologies or (2) computer users over-identify with the technology (Brod, 1984).

TECHNOSTRESS:

The term technostress was coined in 1984 by a clinical psychologist, Dr. Craig Brod (1984, p. 16):

Technostress is a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner. It manifests itself in two distinct but related ways: in the struggle to accept computer technology, and in the more specialized form of over-identification with computer technology.

Although Brod (1984) looked at technostress as a disease, other researchers considered it more as an inability to adapt to changes brought by technology. Davis-Milis (1998) identified technostress as a condition whereby a person has to adapt to new technology especially when there is inadequacy of the equipment, support, or the technology itself. Apart from that, according to Clark and Kalin (1996), the real definition of technostress is "resistance to change". They claimed that technology is not the culprit because computer and technologies are just tools

and stress is a natural reaction. Thus, they suggested that in order to manage technostress, it is the change that has to be managed not the technology. Their view was supported by Champion (1988) who stated that the information age was all about change, or to be more specific, response to "techno change", not about technical components such as machines, programs, network, or fibre optics.

TECHNOSTRESS IN LIBRARIES:

Since the introduction of the internet, librarians were among the early adopters in educating users about the resources available on the internet. However, in the process of adapting to the increasingly complex technologies, more users and staff have been experiencing physical and emotional stress (Saunders, 1999) which resulted in higher levels of absenteeism and turnover, higher cost for retraining new staff and increase in litigation costs related to workplace stress (Harper, 2000).

WHAT CAUSES TECHNOSTRESS?

Nearly twenty years ago, Lisa Ennis wrote her thesis paper on Technostress and entitled it "Technostress in the Reference Environment: A Survey of

From her research at the time, she found six specific causes of Techno stress:

- The Rate of Change of the Technology
- The Lack of Standardization
- The Lack of Training Individuals on the Equipment
- The Reliability of the Technology
- The Increased Workload Placed on Each Individual
- The Changing Roles of Librarians

However, through the survey she performed, she found that librarians rated the first two as the strongest causes of Technostress. Just as the librarians were getting used to one way of doing things, the technology advanced and they were forced to make changes as well

CHANGE IN THE WORKPLACE:

The nature of library work has changed dramatically in the past twenty-five years, largely because of technology. Changes are evident in role definitions, tasks, organizational structures, user expectations, vendor relations, and campus perceptions of library/learning resources personnel.

Larry R. Oberg's 1997 article in the *Journal of Academic Librarianship* on achieving clarity in an age of change reminded readers that professional librarians have yet to resolve issues of who does what in the workplace or what to call themselves.⁵ Traditional production work performed by librarians a generation ago is accomplished today by machines, forcing a redefinition of roles or imminent extinction. As library work has been more intellectualized, several writers have suggested that the information professionals role has expanded into that of a knowledge worker, access engineer, content expert, negotiator, trainer, facilitator, translator, teacher, and guide. Moreover, new titles have emerged for support staff, such as library technical assistant (LTA), library technician, and computer specialist, reflecting new directions in duties.

Database interfaces and formats change (usually without announcement) at the business whims of vendors, often to the disadvantage of librarians, researchers, and scholars. The mushrooming expense of buying electronic information, site licensing, and accuracy of coverage, in addition to continuous pressures to update computer hardware and software, have given rise to new worries. Librarians are uncertain about the longevity and/or accessibility of the products they purchase today.

Bichteler (1986) found that librarians welcome technology in their work setting as it enhanced and improved their work. Nonetheless, with the existence of technology, users expected instant availability of documents; became frustrated with small collection in the library; insisted on computer search when manual search would be better; and became overwhelmed with information when single term search led to too many citations. Thus, dealing with these users has caused the librarians to feel technostressed. In addition, although the usage of word processing did help them work faster, it pushed them to produce more while the lead time is shortened. Consequently, they felt it has caused excess work and put them under pressure to work faster.

Bichteler (1986) also discovered that as a result of library automation some librarians felt that their personalities had changed, in which they became more computer-oriented. They were easily irritated and impatient when dealing with unorganised or illogical people and found it hard to communicate with nonprogrammers. The pressure to use the equipment efficiently and to stay on schedule had reduced their opportunities for conversation and led them to isolate themselves from other people.

TYPES OF TECHNOSTRESS:

❖ Multitasking Madness:

Multitasking madness refers to the ability of a computer to perform multiple task at once. While this is a great thing for a computer to perform, the human mind was not build to multitask at the same level. Yes, the human mind can switch from one task to the other but it keeps the previous task queued somewhere in the back of the mind. The more tasks we try to multi-task, the less efficient we become at performing any tasks. David Meyer, a researcher on multitasking says, "People in a work setting, who are banging away on word processors as they simultaneously answer phones and talk to their colleagues or bosses, are doing switches all the time. Not being able to concentrate for say, ten minutes at a time, may mean it's costing a library as much as 20-40% in terms of potential energy".

❖ Burnout:

"Burnout is a cumulative process leading to emotional exhaustion and withdrawal", some people become angry, blowing up at any one who crosses their path. Some resort to blaming any annoyance, large or small, on external factors. Some become quiet, isolated and introverted.

❖ Internet as a Treat:

The development of internet and electronic networked resources encouraged the development of new services such as digital libraries. However, this might pose a great challenge since the internet was also seen as a threat as it created a lot of uncertainty (Melchionda, 2007). Although there would be some who were optimistic and proactive, there were others who feel threatened and resistant since they have no idea how to manage, work in, and survive in this new environment. Some librarians feared that they would no longer be needed as library users would be able to use the internet without their help. Some librarians also felt threatened by those who were more flexible, smarter, and better trained in technologies. The transition from automation to digitization meant that librarians had to acquire new skills and competencies and be educated in new technologies, which in

turn added a further burden and stress to them (Melchionda, 2007).

❖ **Information overload as overload problem:**

First, there is the claim that we have an excessive amount of information. Second, there is the claim that this excessive amount has a noteworthy effect on us – namely, it diminishes our wellbeing. Third, there is the normative suggestion, albeit unstated, of undesirability: not much argument is needed to justify, say, the claim that anxiety resulting from having to process something we have too much of is undesirable from a prudential point of view; for this reason, it is largely, but not exclusively, factual in character. This conception of the problem is thus fairly characterized, given the analysis of the concept of overload in the preceding section, as an overload problem having to do with information. Moreover, the conception is thick in the sense of having descriptive and normative elements and the normative elements are, so to speak, inherited from the normative content of the concept of overload.

Coping Strategies:

Librarians and media specialists, especially if they also are managers, face not only the responsibility for staying abreast of new technological developments, but also the task of trying to eliminate some of the stress these factors are causing us and our personnel.

Librarianship is an aging profession, and many of its practitioners, particularly at the supervisory level, have reached middle age. Being in this age bracket confronts an individual with a totally new and widening assortment of stress factors: providing care for aging parents, planning for retirement, financing college educations, providing the "right" parental guidance to totally unpredictable children, and coping with a mid-life crisis which may include a marriage that's gone sour. Librarians must develop strategies for arming themselves to cope with these personal and professional stress ingredients. At the same time, in the face of personal dilemmas, they also must effectively motivate and attempt to de-stress their employees.

In order to help others, librarians first must help themselves. The first step is to recognize the fact that there is a problem. The fatigue and frustrations brought on by stress often make it difficult to recognize and respond effectively to the symptoms of stress. According to Nelson, Quick and Quick in "Corporate Warfare: Preventing Combat Stress and Battle Fatigue" (1989), symptoms which result from mismanaged stress fall into three categories: behavioral, physical and psychological. Physical problems typically are manifested by muscle tension, particularly in the neck and shoulders. A major psychological symptom often reported is withdrawal.

One of the most effective ways to reduce stress is to find the proper balance between work and private life. Working long and hard is admirable, but the manager who falls into the pattern of steadily increasing work hours is just as steadily heading for trouble. He or she must learn to accept that only so much can be accomplished in a given amount of time, and must call it a day. Creating this balance includes finding time for personal interests, outside the necessities of keeping up the house, running errands or paying the bills. Many people have hobbies so absorbing that work related problems become totally submerged, often resurfacing later with a fresh and different perspective.

Suggestions for achieving this personal space often are simple. Many people make a practice of taking several mini-vacations throughout the year, rather than scheduling a two-week trip at the height of the season. Other techniques include choosing different routes to and from work and taking a periodic break in mid-week to follow a personal interest. Even a short walk taken during the lunch break often helps to break the monotony of one's routine and provide a new energy and enthusiasm for the work at hand.

Some library staff find themselves actively involved in supporting their professional organizations as a means of bringing about a change of pace. Even though this participation is work-related, it is often refreshing to exchange ideas with colleagues in a foreign environment which is removed from the constant interruptions and concerns of the regular work day.

CONCLUSION:

Technology will continue to advance, as processing power continues to climb in personal computers, software will continue to change as well. Challenges to organizations will continue to mount in trying to keep the level of technostress down in the organization. New software initiatives should be planned well in advance and training provided to impacted employees. Libraries should pick software applications that fit their working environment. The easier the library professional interact with the system, the less technostress created. Top level management support is needed to make this happen. The main findings in this study found that the computer use may contribute unhealthy psychological impact particularly stress. Employers and organizations concerned have to handle this matter seriously by providing training to staff that equip them with ICT exploration.

Understanding techno stress and the ways in which computer affects a person individually might decrease the potential physical and psychological harm.

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