

Technology as a Source of Stress Among Employees: Input to Human Resource Management (A Review)

Dr. Jake M. Laguador

Associate Professor, College of Engineering, Lyceum of the Philippines University,
Batangas City, 4200, Philippines
jakelaguador@yahoo.com

ABSTRACT

Technology has brought so many advantages to the dynamic end-users from personal to professional development as well as establishing career pathways. But machines are also like human beings in terms of communication. The expected information that the users want to achieve from the computer equipment sometimes become the cause of frustration on the part of the users when it is unable to produce certain output coming from its source. This article reviews some of the technological stress brought to the employees during their work hours. The companies' human resource department must be aware and informed regarding the problems being encountered by their employees that might be the cause of stress leading to dissatisfaction and inefficiency of the workforce. Designing a program that would address these needs would lessen the unpleasant behaviour of the staff towards the interrupted response of modern technology.

Keywords: Technological Stress, Human resource, computer stress,

Introduction

Work can be routinary in the office wherein computer related skill is an important aspect of competency of the employees to perform their duties with the use of technology. People at home and at work are being too dependent to the power of computer. Various peripherals connected to this technology such as printer, scanner, fax, photocopier, etc. are already part in any business set-up for accomplishing daily transaction and activities. Responding to the demands and inquiries of the clients immediately is a form of providing quality service with an end result of achieving the goal of making the customers really satisfied at the end of the process. But the interaction of employees between customers and technology is a factor that drives the pressure and tension to produce stress.

Every end-user who enjoys the benefits of computer should know that there is also a dark side to this modern wonder of technology (Orman, 2010). There is also a downside in the form of computer-related stress like the finding of the study conducted in 2003 by UK poll for the Symantec Corporation showed

86% of people surveyed as having experienced stressful IT-related incidents (Charlton, 2010). Understanding the role of the environment that surrounds with different computer equipment and its diverse applications would actually explain the causes of technological stress and seek some support from the company's human resource management on how to identify those factors to relieve stress if cannot be avoided in any field of work.

Computer Stress and Age Differences

For some employees who were used to manual operations are too resistant in adapting the modern system of processing information. It is commonly believed that older adults hold more negative attitudes toward computer technology than younger people and the finding of the study conducted by Czaja and Sharit (1998) reveals that older people perceived less comfort, efficacy, and control over computers than did the other participants. Although the use of computers is expanding in the overall population, for older adults there still remains a "digital divide", therefore, development of strategies to help insure that older people have equal opportunities to access computer technology depends on understanding why they have lower adoption rates (Nair et al, 2005). In many cases, older adults are the fastest growing computer and Internet user group in both personal and workplace contexts. However, the needs and concerns of older adults as computer users differ from those of younger users as a result of the natural changes associated with the aging process (Wagner et al, 2010).

It might be expected, people with less experience with computers and those lacking confidence in their ability to deal with computers tend to have greater feelings of helplessness and frustration and experience greater anger at both themselves and computers when things go wrong (Charlton, 2010). Stress comes in to older people when they get stuck in a computer operation without knowing what to do next. Maintaining proper collaboration between young and adult professionals in the office is a good way in acknowledging the age differences to address the issue of digital divide. Competition should not be the way of life in the department to beat the performance of one staff against the other when it comes to demonstration of computer expertise.

Hardware and Software Problems

Improper placement of keyboard and height of the monitor and lack of considerations for the selection of adjustable chairs and tables to be used by office employees are some of the sources of stress being neglected by the users and the management. Choosing the right office equipment most appropriate to the new office staff would benefit the whole organization. Ensure that the chair height is adjustable with lower back support and elbow rest so that any staff who occupies the position could fit in the work area. The position of the computer keyboard must not too high nor too low from the level of the arm and elbow of the user so that proper back posture can be maintained. The height of the monitor screen must level to the eyesight with viewing distance ranging from 20 to 40 inches. The management must ensure these

considerations so that employees may not suffer severely from any health problems because of inappropriate acquisition of office hardware equipment.

Outdated computers are the biggest reason for computer frustration (Lane, 2012). Slow processing of the system would really add to the burden of the office staff in a work place especially those employees assigned in the customer service where people need quick attention and response. Computer knowledge is another source of stress where the user cannot accomplish a certain task immediately due to lack of training in using the software application.

Printers sometimes might not function properly due to paper jam, program error or low ink level. Sometimes what can be seen on the screen is not what really the output on the hard copy due to printer setting which accidentally selected without being noticed at once. It would sometimes affect the mood on the part of user because the hard copy of the report is badly needed by the immediate superior. Blaming the performance of the computer is the end-result of the untoward consequence that really affects certain behaviour due to sudden reaction. Patience sometimes is the only answer to wait for the printer to give response from the command. Trying to click many buttons and options on the screen makes the situation worst until the entire computer program becomes busy and not responding anymore.

LCD projector without output signal during the actual presentation due to some unknown reasons is one source of stress for the technical committees and event organizers. They are time-pressured because everybody is waiting for the presentation to start but still the speaker cannot proceed with the talk without the Power Point Presentation. Sometimes it consumes and wastes the time of the conference or meeting attendees due to technical problems. Setting up earlier the LCD projector in the venue to test its functionality would be enough preventive action to avoid meeting delays.

Corrupted Power Point presentation due to virus would also be the source of stress for the lecturer. Computers infected with computer virus would also become a source of great stress for the employees due to anxiety of what the virus can possibly do with the documents like deletion of all files in a certain folder. Maintain an updated antivirus scanner so that any new created malware could be detected by the antivirus software. Refrain from downloading files from unreliable sites to avoid viruses from the internet.

Documents not properly saved in the flash drives or prepared videos do not play due to incompatibility of media player are some of the problems might also encountered in live presentation. Testing it earlier in the venue is also a good habit to practice to oversee immediately the probable cause of problem. It is always necessary to have a back up file sent in the email aside from saving it to the flash drive. Even important office or personal files must always have a back up in a separate external hard drive or in the email so that documents can still be accessed anywhere.

Receiving and sending electronic mails could also be a source of stressful work load. There is also evidence that Email, unlike more traditional communication media, can exert a powerful hold over its users and that many computer users experience stress as a direct result of email-related pressure (Hair et al, 2007). In a previous study by researchers at the universities of Paisley and Glasgow email users were categorised into three different types: those adopting a relaxed orientation to email who don't feel under any pressure to respond quickly to emails and don't expect people to respond quickly to their emails either; those having a driven orientation who respond to emails quickly and expect fast responses to their emails, but see all this in a positive light; and those having a stressed orientation who see email as a source of stress and difficulty in their life (Charlton, 2010).

Maintaining proper network security and passwords must always be observed so that any confidential files and information of the company would not be disclosed the copy to anyone unauthorized to have it because it would lead to the one of the most stressful incidents in the department.

Conclusion

Computer Stress Syndrome occurs when a user "suffers a continuous state of technical anxiety that can lead to "road rage" style behaviour (Lane, 2012). People have experienced eye strain, neck and back fatigue, headaches, repetitive stress injuries or lack of focus while at the computer (Lane, 2012). The neck and shoulder pain symptoms are very common among intensive computer users (Ming et al, 2004). The symptoms and signs caused by repetitive computer use that is characterized by neck, shoulder, elbow, wrist and hand pain, paresthesia, and numbness can be called 'Computer Related Upper Limb Musculoskeletal (ComRULM) disorders' (Ming & Zaproudina, 2003) .Work stress contributes significantly to corporate health costs. Numerous corporations have implemented worksite stress-management interventions to mitigate the financial and personal impact of stress on their employees (Eisen et al, 2008). Preventive measures and treatments for computer related stress injuries help in preventing loss of movement in the joint in future (indiaparenting.com). Proper habitual seating exercise while trying to accomplish certain task for few seconds would prevent health problems to occur that caused by excessive time in front of the computer. Also to relive stress, place a small plant beside the computer. NASA researchers have proven that having a plant at workstation reduces stress level (Lane, 2012).

Computer anger is likely to be a source of stress for a small but significant number of people, that computers' non-sentience leads to physical disinhibition, but that evidence that the expression of computer anger in social environments is inhibited by fear of people's negative evaluations is weak (Charlton, 2009). Hierarchical moderated regression results support that the attitude towards computer acts as a moderator in the relationship between computer anxiety and stress; computer anxiety and job satisfaction; and computer anxiety and career satisfaction (Parayitam et al, 2010).

In order for the employees to obtain high performance evaluation, the aspect of job satisfaction must be first achieved with lesser induce stress from the work environment. The management must provide updated office equipment or new computer application software so that the employees would enjoy their work without any hassles or delays on providing better services to clients. Training the employees on how to use the newly acquired software is always necessary.

The bottom line of all these stressful moments with technology is how the end-users react to the situation. Behaviour is still an important factor in reducing stress. Anxiety towards the current condition always yields greater position in the consciousness that makes anyone cramming and sometimes confused who could not think clearly and accurately at the moment. Stress free environment would increase work productivity with balance attitude towards personal and professional growth.

Administration of learning needs analysis survey to the employees focusing on the use of computer and other related technologies available in the company would define the areas that require retraining to increase the level of knowledge, skills and awareness of the employees on how to use certain equipment stress free and easily with confidence and efficiency.

References

- Computer Related Stress Injuries: Preventive Measures & Treatment, available online:
http://www.indiaparenting.com/childs-healthcare/257_4546/computer-related-stress-injuries.html,
accessed: May 6, 2013.
- Czaja, S. J. & Sharit, J. (1998). Age Differences in Attitudes Toward Computers, *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 53B(5), 329-340.
- Charlton, J. P. (2009). The determinants and expression of computer-related anger, *Computers in Human Behavior*, 25(6), 1213-1221.
- Charlton, J. P. (2010). No. It's Not OK Computer! Computer-Related Stress In The Workplace, Business Advice Available online:
http://www.freshbusinessthinking.com/business_advice.php?CID=0&AID=5202&PGID=1, accessed:
May 7, 2013.
- Eisen, K. P., Allen, G. J., Bollash, M. & Pescatello, L. S. (2008). Stress management in the workplace: A comparison of a computer-based and an in-person stress-management intervention, *Computers in Human Behavior*, 24(2),486-496.

Hair, M., Renaud, K.V. & Ramsay, J. (2007). The influence of self-esteem and locus of control on perceived email-related stress, *Computers in Human Behavior*, 23(6), 2791-2803.

Lane, M.(2012), available online:

<http://availabletechnology.blogspot.com/2012/08/computer-related-stress-and-how-to.html>, accessed: May 5, 2013.

Orman, M.C. (2010), Common Causes of Computer Stress: A Special Report, available online:

<http://www.stresscure.com/hrn/common.html>, accessed: May 6, 2013.

Nair, S. N., Lee, C. & Czaja, S. J. (2005). Older Adults and Attitudes Towards Computers: Have they Changed with Recent Advances in Technology?, *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 49 (2), 154-157, doi: 10.1177/154193120504900201.

Parayitam, S. Desai, K. J., Desai, M. S. & Eason, M. K. (2010). Computer attitude as a moderator in the relationship between computer anxiety, satisfaction, and stress, *Computers in Human Behavior*, 26(3), 345-352.

Ming, Z., Närhi, M. & Siivola, J. (2004). Neck and shoulder pain related to computer use, *Pathophysiology*, 11(1), 51-56.

Ming, Z. & Zaproudina, N. (2003). Computer use related upper limb musculoskeletal (ComRULM) disorders, *Pathophysiology*, 9(3), 155-160.

Wagner, N., Hassanein, K. & Head, M. (2010). Computer use by older adults: A multi-disciplinary review, *Computers in Human Behavior*, 26(5), 870-882.



Jake M. Laguador is an Associate Professor at the Institute of Advanced Studies, College of Business Administration and College of Engineering in Lyceum of the Philippines University (LPU) – Batangas City. He finished his baccalaureate degree in Computer Engineering from LPU, Master's Degree in Public Administration from the same University and Doctorate Degree in Educational Management from Eulogio "Amang" Rodriguez Institute of Science and Technology. He works as Faculty Researcher for Engineering, Maritime, Education and Business Professions. His fields of research interest are Educational Psychology, Engineering, Business and Computer Education, Graduates Employability and Information Technology. He has taught general and professional courses in Engineering and Business such as AutoCAD, Research and Statistics, Engineering Economy, Technical Drawing, Computer Ethics, Computer Fundamentals, Entrepreneurship and Operations Management. He presented his research papers in national and international conferences. He is also a member of peer review committee and published research papers in international journals. At present, he is a member of International Economics Development Research Center (IEDRC), International Association of Computer Science and Information Technology (IACSIT), Network of CALABARZON Educational Institutions (NOCEI), CALABARZON Research Council (CRC), and Institute of Computer Engineers of the Philippines (ICpEP).