

Technostress Levels of Social Network Users Based on ICTs in Turkey

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Abstract

ICTs have become a rapidly renewing and important field. The use of these technologies, which constantly renew themselves in both software and hardware, is a source of pressure for both individual and social health and wellbeing. As a health concern, the pressure caused by intensive use of technology has been coined technostress. This study analyzes the technostress levels of social network users caused by the use of information and communication technologies through several variables. Social network users were chosen based on the assumption that they use and follow information and communication technologies intensively. This research, conducted on 287 participants, used data gathered through an online questionnaire. The study concluded that social networking users have “medium technostress level”, and that the significant contributing factors in technostress were social pressure regarding the use of technology, remembering large quantities of passwords and user names, anxiety regarding data loss, and technology giving shape to professional life. In addition, it was determined that technostress levels vary based on gender, profession and age.

Keywords: Technostress, Technology & Health, Technology Induced Stress, Computer Anxiety, Health Information Technology.

1. Introduction

In the last 20 years, various Information and Communication Technologies (ICTs) such as television, mobile phones, satellite systems, the internet, and primarily computer technologies have changed daily and professional life in education, health, culture, art, entertainment and economy (Hoffman et. al., 2004). In actuality, changes in technological products have been occurring since the dawn of man. The invention of the wheel, the establishment of the printing press, the discovery of electricity and invention of the light bulb can be portrayed as examples of technological developments and innovations from previous ages and eras. As such, the most remarkable aspect of technological change today is the rapidity of change (Table 1).

Table 1: Historical Transformations During the Digital Transition (Al Shami, 2008)

Historical Age	Timeframe	Duration of Effect
Dark Ages	1390 – 1720	330 Years
Industrial Revaluation	1720 – 1870	150 Years
Age of Modernism	1870 – 1950	80 Years
Era of Mass Communication	1950 – 1990	40 Years
Personalize Automation	1990 – 1994	4 Years
Age of Information	1994 – 1996	2 Years
Instant Interaction	2000 – ...	Monthly

It can be seen from Table 1 that especially during the last 20 years, a period of rapid change has emerged, forcing people to keep up with the pace of change. Even before we get used to new notebooks, mobile phones and televisions, a newer, more advanced model is released. In addition, the field of software is also developing at a rapid pace, enabling the change in technological products to be multi faceted. These changes in ICTs, of which computers and the internet lead in innovations, bring ease to human living, providing the ability to perform numerous processes in daily and professional life independent of time and space. However, in addition to all these benefits, there are certain criticisms that come with the territory. Physical, physiological and psychological health issues such as joint discomforts and illnesses, eye discomfort and optical ailments, radiation, computer anxiety, and panic attacks have been well documented (Hobbs, 2002; Juul-Kristensen et al., 2006; Todman and Drysdale, 2004). However, another issue which is of great importance in the field of ICTs is technostress. This rapid technological change may be the cause of one of the greatest psychological pressures of our age. This pressure is generally called technostress.

1.1. Stress and Technostress

Stress is defined as subdued physiological and psychological reactions which, as such, remain insufficiently addressed, and endanger the peace and wellbeing of people (Watson, Parr and Bliss, 1994). Selye (1997) defines stress as a non-specific reaction of the human body to any system. Stress has an effect on individuals, and influences their work efficiency and relationships with others (Szilagry and Wallace, 1980). Rowden and Conine (2005) also provide a definition, stating that stress is a mental and physical situation which influences an individual’s health, work and quality of life, emphasizing work related stress which leaves workers devoid of work satisfaction and working life quality.

Technostress is a sub dimension of stress, defined by Weil and Rosen (1997) as the direct or indirect negative effect of technology use on human behavior, thought, attitude and psychology. Champion (1988) stated that rapidly changing technology would have a negative effect on future living, and thereby described technostress as “The Price of Using Technology”. Brod (1982) who coined the term, defined technostress as a situation resulting in difficulty adapting, stemming from the use of a new technology by an individual or organization. In a separate instance, Brod (1984) has stated that other people or employers with technological skills in a given environment (work/duty/task/family) have an important effect on technostress. Yet another definition states that technostress is the mental and psychological problems afflicting people with technologically dense work (Arnetz and Wikholm, 1998). Brillhart (2004), on the other hand, states that technostress is caused by technologically focused tasks such as planning meetings, business plans, and anxiety over work deadlines. One aspect of technostress that is notable is that it is frequently confused with techno-anxiety, both within the field of psychology. Techno-anxiety is a symptom of technostress. As such, techno-anxiety is one of the ailments produced by technostress. Therefore technostress and techno-anxiety are separate terms, not to be confused (Champion, 1988).

Stress is an important issue. With the dispersion and adoption of new technologies, circumstances forcing people to use these technologies manifests stress based on technology – technostress. There are several symptoms which may be useful in diagnosing technostress.

1.2. Symptoms of Technostress

Champion (1988) emphasizes that technostress is a serious illness, and lists several of its symptoms: panic, anxiety, resistance, technophobia, mental fatigue, physical ailments, intolerance and perfectionism. Additionally, drops in work efficiency and limited utilization of technology are mentioned as preliminary symptoms.

Brod (1984) expresses the most important symptom of technostress as being anxiety towards computer technologies. In other words, anxiety is given as the result of technostress. Brod also lists physical symptoms such as muscle cramps, headaches, joint aches, and lack of sleep/insomnia. Rosch (1994) states increased frustration, anxiety, dehumanization and depression in ‘high-tech’ working environments regarding technostress.

Brillhart (2004), in addition to psychological causes such as mental fatigue, sleeping trouble, lack of rest, lists physical causes in the form of headaches, furor, stomach and intestinal problems, heart attack and high blood pressure. Harper (2000) states that head, hand and back aches from overuse of technology may cause technostress. Tu, Wang and Shu (2005) state that recession in professional efficiency is a symptom of technostress.

Technostress causes serious mental and physical health issues. Considering the increase in frequency of these ailments in our daily lives, it can be said that technologically induced stress is inflicting great impact.

1.3. Core Factors of Technostress

Possible factors influencing technostress are listed as experience in use of technology, age, pressure of supervision during use, and general climate of the working environment (Brod, 1982). Champion (1988) provide main factors inducing technostress:

- Environmental factors: Inappropriate working conditions or other environmental conditions, inappropriate lighting, insufficient equipment with security measures, equipment with compatibility issues, noisy equipment, incapable equipment, software limitations, lack of funding, electrical issues, risk of accidental data loss, insufficient maintenance knowledge, insufficient senior/adult personnel may cause people to suffer stress related with the use of technology.
- Social factors: Conflicts of interest caused by the use of technology, power struggles, work and role changes, anxiety over loss of employment, work/employment fragmentation and hierarchal changes may cause people to suffer technology related stress. For example, an administrator who is decisive regarding the use of technology may press employees on their use of technology.

Enis (2005), on the other hand, lists six core factors for technostress and suggests precautions against them. The aforementioned factors are rapid change, lack of education, increased workload, lack of standardization in work, reliability of technology, and role alterations. Enis adds that technological developments such as rapidly changing mobile technologies increase technostress in this age. Harper (2000) lists similar factors: information overload, under-working and routine jobs, job insecurity and de-motivation, and job uncertainty.

Despite varying approaches regarding the reasons behind technostress, the effects of psychological pressure in the affliction of technostress appear to be a commonality.

1.4. Increases in the Use of ICTs and Its Possible Effects on Technostress

Despite lacking a rooted history compared to other technologies, ICTs have had great impacts on human life. Led by computers, all ICTs such as the internet and mobile phones are in widespread use in both rural and metropolitan areas. The data gathered by the Turkish Statistical Institute (TurkStat) for 2005-2010 portrays the technological change taking place in the homes of the 75 million populace of Turkey (TurkStat, 2010a).

Table 2: Transformation in Home ICT Ownership in Turkey from 2005 to 2010

	Year 2005			Year 2010		
	Turkey Average	City Center	Rural Areas	Turkey Average	City Center	Rural Areas
Internet*	13.9	18.6	6.1	38.1	45.5	20.7
Personel computer - PC	11.6	16.1	3.7	30.7	37.1	15.2
Portable computer (Laptop, Tablet PC)	1.1	1.6	0.3	11.2	14.3	3.6
Handheld computer	0.1	0.2	-	0.6	0.8	0.3
Mobile phone	72.6	79.9	59.9	87.6	89.6	82.9
Game console (Playstation etc.)	2.9	3.7	1.4	3.7	4.5	1.6

Table 2 portrays that in the 4 year period shown, all new technologies have undergone significant development in both rural and urban areas. Technological development has caused many habitual changes in professional life as well as in home environments. 15-20 years ago, Schwerm and Benedict stated that computers would be dominant by 50-70% in working life in the 21st century (Schwerm and Benedict, 1987). Today, computers and automation systems verify Schwerm and Benedict. The change in computer and internet use based on fields of work is provided in Table 3 (TurkStat, 20010b).

Table 3: Ratio of Companies Utilizing Computers and the Internet by Sector

	Computer		Internet	
	2005	2010	2005	2010
General	87.8	90.7	80.4	88.8
Manufacturing	84.7	91.4	78.1	89.5
Construction	79.8	83.9	70.4	81.9
Wholesale and retail trade	91.2	92.7	83.1	91.0
Hotels- Camping sites and others	97.7	98.9	84.1	97.7
Transport, storage and communication	92.7	91.0	87.3	88.9

Regardless of the field, most organizations appear to utilize computers and internet connections in the year 2005 (Table 3). This ratio has increased today, with the effective use of ICTs being significant as a preference of employers. Individuals incapable of keeping up with the rapid pace of technological change end up having to compete with better equipped people in their work environments and thus, endure great pressure. In addition, due to machines being capable of performing tasks which normally require tens of people, humans end up competing with machines as well. This pressure is, in fact, a type of technostress and falls under Champion’s (1988) designation of technostress induced by social factors. Another similarly common type of technostress is environmentally induced technostress. It is clear that the use of ICTs in work, education, homes, communications, entertainment, military, agriculture, medicine, and virtually every field conceivable is practically inevitable. As can be inferred from Table 2, environmentally induced technostress can be caused by factors such as incapability of following rapidly developing technology, financial difficulty preventing purchases, difficulty in remembering numerous passwords and user names associated with technology, inappropriate physical environment surrounding technology, increased prevalence of base stations/cell towers.

1.4. Research Purpose

This research aims to determine the technostress levels of social networking users' caused by the use of ICT technologies. As a study conducted on social networking users who intensely use ICTs, answers to the following research questions are sought:

1. What are the technostress levels of social networking users?
2. Are the technostress levels of social networking users differentiated by the following variables:
 - a. Gender
 - b. Occupation
 - c. Age group

1.5. Significance of Research

It can be said that technostress plays an important part in the dissolution of family structures due to heart and blood pressure issues, stomach and cranial aches, furor, and other psychological issues with social and economic impact. This being the case, this study is of great importance as it draws attention to technostress, provides a general view of Internet users, emphasizes the ramifications of rapid technological change, and also places emphasis on serious social consequences which may lurk in the near future.

1.6. Limitations

This study, conducted online through the social networking platform "Facebook", is limited to the responses of the volunteers who completed a questionnaire during the first two week of February, 2010 through the "Nasılım" application.

2. Methodology

This section comprises of the research model, research population, data gathering tool, data gathering process and analysis of data.

2.1. Research Model

This descriptive research uses a survey model. In accordance with the research purposes, singular and relational survey models were utilized. The technostress levels of internet users were obtained through a questionnaire, and findings were presented in accordance with the opinions of users.

2.2. Research Population

This research was conducted on users of the "Nasılım" application on the social networking platform 'Facebook'. Since the entire population was unattainable, time-sampling method was used to obtain a sample population. Under the scope of this research, a questionnaire was presented to users of the "Nasılım" application in the first two week of February, 2010. Voluntary 287 users participated in the research.

2.3. Data Gathering Tool and Analysis of Data

To determine the technostress levels of social networking users, a questionnaire was developed by the researcher. Before the development of the questionnaire, related literature was scanned, and any scale was not found on the technostress. There are two sections in the questionnaire. The first section requests personal information for use in the secondary objectives of this study, while the second section contains items prepared in accordance with literature on the social and environmental factors of technostress. The items in this section are expressed as a 5-point Likert scale. The questionnaire was

revised based on the opinions of four experts in the field who serve in the departments of Computer Sciences, and Psychological Guidance and Counseling at Anadolu University, thereby ensuring content validity. The revised questionnaire was then applied online to a pilot group of 30 participants. Reliability calculations to determine the internal consistency coefficient produced a Cronbach Alpha value (α) of .82.

2.4. Analysis of Data

Percentage and frequency values are utilized to analyze the general technostress levels of social networking users. Meaningful difference in participant opinion was sought based on gender using an independent samples T test, occupation and age groups using one-way ANOVA. Differentiation between groups in the one-way ANOVA was determined using the Scheffe Post-Hoc test.

The items based on a 5-point Likert scale in the data gathering tool were computerized based on the following grades: “very high– 1”, “high– 2”, “medium– 3”, “low– 4”, “very low– 5”, The following intervals were taken into consideration regarding the interpretation of the averages obtained from the 5-point Likert scale (Table 4).

Table 4: Evaluation Criteria

Evaluation Criteria	Evaluation Interval
Very high technostress level	4.21-5.00
High technostress level	3.41-4.20
Medium technostress level	2.61-3.40
Low technostress level	1.81-2.60
Very low technostress level	1.00-1.80

For the statistical analysis of the study, SPSS 15.0 (Statistical Package for the Social Sciences) was utilized. The level of significance in all analyses is considered .05.

3. Findings and Interpretations

This section comprises of the findings and interpretations regarding demographic information and technostress levels of social networking users. Additionally, findings regarding differentiation of technostress levels based on gender, age and occupation are interpreted under separate titles.

3.1. Demographic Characteristics of Participants

287 social networking users participated in this study to determine the technostress levels. Demographic information regarding these participants is provided in Table 5.

Table 5: Demographic Information of Participants

	Variables	n	%
Gender	Female	132	45.9
	Male	155	54.1
	Total	287	100
Occupation	Student	95	33.1
	Worker/Government Employee	61	21.3
	Self-employed/Artisan	56	19.5
	Other (farmer, retired, housewife etc.)	75	26.1
	Total	287	100
Age Group	Under 20	78	27.2
	21-25	86	30.0
	26-30	63	22.0
	31 and above	60	20.9
	Total	287	100

Table 5 portrays that 54.1% of participants are male, 45.9% are female, 33.1% are students, 21.3% are workers, 19.5% are self-employed, and 26.1% fall under the ‘other’ categorization regarding occupation. The participants’ highest populated age group appears to be 21-25 (30%), followed by 20 and under (27.2%), 26-30 (22.0%) and finally 31 and above (20.9%).

3.2. Technostress Levels of Social Networking Users

The data gathered by the data gathering tool has been analyzed, and the descriptive statistical values of the responses to these items are presented in Table 6.

Table 6: Technostress Levels of Social Networking Users

Your technostress level is ... in terms of	\bar{X}	Ss
cost of ICT technologies	2.94	1.450
e-mails with advertising and similar content	3.01	1.333
slow computer speed and Internet connection	2.89	1.332
security of personal information in Internet	3.33	1.294
viruses and harmful code in ICT technologies	3.00	1.407
effects of technological equipments on social life	2.53	1.329
spending time in front of a computer	2.85	1.434
possibility of the loss of accumulated data due to the use of new technology.	3.63	1.252
used terminology to define the new ICT technologies.	3.22	1.304
rapid change taking place in professional life caused by technology.	3.56	1.291
user names and passwords in the different ICTs (tools, programs or websites)	3.88	1.095
more competent people in using new technologies for my job	2.96	1.269
using a new software product	3.39	1.260
using a new technology for the first time	3.47	1.348
effect of the society/environment/establishment regarding the use of new technology	3.62	1.243
the information density provided by tools such as the internet and television	2.68	1.315
due to possible hardware problems, using a new ICT	3.18	1.371
General Average	3.18	0.738

It can be seen in table 6 that the technostress levels of social networking users are of a “medium technostress level” (\bar{X} =3.18). This finding can also be interpreted as the social networking users of Turkey having a medium level of technostress over the use of ICTs.

When analyzed according to evaluation criteria in “Analysis of Data” title, the entries regarding ICT-related technostress of Turkish social networking users show that “high technostress level” are caused by elements such as; user names and passwords (\bar{X} =3.88), possibility of the data loss (\bar{X} =3.63), social/environmental/ organizational effect (\bar{X} =3.62), rapid change in professional life caused by technology (\bar{X} =3.56), and using a new technology for the first time (\bar{X} =3.47). It can be seen that social networking users suffer technostress caused by both social and environmental causes. Effects on social life (\bar{X} =2.53) appear to be the only item considered to cause “low technostress level”. “Medium technostress level” has been seen all of the other items.

While social networking users generally seem to imbue medium levels of technostress, it is notable that the most impactful aspects regarding stress from use of technology is caused by the use of new technology, rapid changes in professional life caused by technology, possibility of data loss, the use of multiple user names and passwords, and social and environmental effect.

3.3. Correlation between Social Networking Users and Certain Variables

The relationship between certain factors and the technostress levels of social networking users based on the use of new technologies such as the internet was also analyzed in this study. To do so, the

general state of technostress was analyzed in accordance with variables related to the secondary purposes stated.

3.3.1. Correlation between Technostress Level and Gender

Differentiation between technostress levels between different genders of social network users was analyzed, and the results are presented in Table 7.

Table 7: Relationship between Technostress Levels of Social Networking Users and Gender

Gender	n	\bar{x}	sd	df	t	p
Female	132	3.32	.71	285	3.036	.003
Male	155	3.06	.73			

The T test performed to determine the significance of the difference between technostress levels of internet users across genders revealed that technostress levels do differentiate based on gender [$t_{(285)}=3.036$ $p<.05$] (Table 7). The difference between the average technostress levels of male ($\bar{x}=3.06$) and female ($\bar{x}=3.32$) participants is statistically significant. This finding shows that while social networking users of both genders suffer from the same, medium levels of technostress, it can be interpreted that females suffer greater technostress, as they have higher technostress levels. Gender has a determinant effect on technostress levels. Female users have higher technostress levels than male users.

3.3.2. Correlation between Users' Technostress Levels and Occupation

In accordance with secondary research purposes, the relationship between technostress levels of social networking users and their occupations was analyzed, and the results are conveyed in Table 8.

Table 8: Technostress Levels of Participants Based on Occupation

Source of Variance	Sum of Squares	df	Mean of Squares	F	p	Significant Difference
Between Groups	8.554	3	2.851	5.468	.001	Student – Other (farmer,retired, housewife etc.)
Within Groups	147.563	283	.521			
Total	156.117	286				

When analyzed based on occupation, the average technostress levels of students were found to be $\bar{x}=2.96$, that of workers was found to be $\bar{x}=3.20$, self-employed/artisan users had $\bar{x}=3.22$, and users falling under the 'other' categorization (farmers, retirees, housewives etc.) had technostress average technostress levels of $\bar{x}=3.41$. The one-way ANOVA conducted to determine the differentiation between groups of employment revealed that technostress levels differentiate between occupations [$F(3-283)=5.468$, $p<.05$]. The analysis to determine which groups differentiated resulted in a significant difference of .05 between students and 'other' occupations. In other words, individuals pertaining to the 'other' category (such as farmers, housewives etc.) ($\bar{x}=3.41$) undergo higher levels of stress due to the use of technology when compared to students ($\bar{x} =2.69$). No significant difference was found between other categories.

3.3.3. Correlation between Technostress Levels and Ages of Social Networking Users

Considering the pace of technological change, and considering that variations may occur in technology usage depending on age, the relationship between technostress levels and participant age was analyzed (Table 9).

Table 9: Results from Analysis of Technostress Levels and Age

Source of Variance	Sum of Squares	df	Mean of Squares	F	p	Significant Difference
Between Groups	5.278	3	1.759	3.301	.021	20 and under – 31 and over
Within Groups	150.838	283	.533			
Total	156.117	286				

The average technostress levels of participants for 20 and below was calculated as ($\bar{x}=2.97$), ($\bar{x}=3.21$) for the interval 21-25, ($\bar{x}=3.27$) for 26-30, and lastly ($\bar{x}=3.32$) for ages 31 and above. An interesting finding is that technostress levels appear to rise with age. The variance analysis performed to determine differentiation between groups revealed that technostress levels of users do differentiate according to age [F(3-283)=3.301, $p<.05$]. In other words, technostress levels of social networking users may change based on their age. The analysis to determine which groups displayed differentiation resulted in an advantage in difference towards technostress levels of users aged 20 and under ($\bar{x}=2.97$), as opposed to those aged 31 and greater ($\bar{x}=3.32$). This finding shows that users aged 31 and above have greater technostress levels than those aged 20 and below.

An important finding is that technostress levels regarding the use of ICTs rise as age progresses. While all age groups displayed medium levels of technostress, the fact that users of age 20 and below having relatively low levels of technostress, and users of age 31 and above having relatively high levels of technostress can be noted as important findings.

4. Conclusion and Results

Various issues such as economic problems, transformation in family structure, cultural change in professional and social life cause great pressure on people (Leung, 2008). One aspect of stress which must be taken notice of is stress caused by the use of technology – technostress. First coined by Brod in 1982, this term has gained importance today as rapid technological changes take place. ICTs undergoing rapid development such as the internet, mobile phones, PDAs, notebooks and netbooks, with their new models and applications, are important sources of technostress which influences social life (Hoffman, Novak and Venkatesh, 2004). Enis (2005) has also stated that rapidly changing technological innovations cause role changes, thereby spread technostress in our age. Behind many important ailments and illnesses such as high blood pressure, heart conditions, fatigue, anger/furor, insomnia, and low professional efficiency, the pressure brought on by the use of technology – technostress – stands out (Brillhart, 2004; Harper, 2000; Tu, Wang and Shu, 2005). This study, which aimed to determine the technostress level caused by the use of ICTs, was conducted on 287 social networking users.

This study concludes that Turkish social networking users have a “medium technostress level” regarding the use of ICTs. To explain this finding, some of the technostress-related researches can be used. In these researches, the technology level was rather attributed the computer literacy. Tu, Wang and Shu (2005) indicate that individuals with high computer literacy suffer low technostress, while individuals with low computer literacy suffer greater technostress in their research. Similarly, Sonya (2003) concluded that skills in computer use influenced technostress levels. As such, it can be said that high internet and computer literacy levels in users prevent high technostress levels. Specific subjects which cause advanced levels of technostress are social pressure regarding the use of technology, remembering many user names and passwords, data loss, frequent reshaping of professional life due to technology, and the use of new technology for the first time.

Women suffer greater stress regarding technostress levels caused by ICT use. Differing findings present themselves on this subject. Some studies portray no difference between genders (Aida et. al., 2007; Anthony, 2000; Sonya, 2003), while others portray findings indicating higher levels of technostress in the female gender (Wijk and Kolk, 1997; Skues and Kirby, 1995). It can be said that the variation in findings among different studies stems from research conducted in different cultures. As is

the case with Turkey, males stand out as a majority in the working population of some countries. Females face constraints and limited opportunities regarding employment and economic independence. On the other hand, Reed and Overbough (1993) state that females suffer greater anxiety regarding computer anxiety. It can be said that this anxiety influences the findings of higher technostress levels in females.

Technostress levels of Turkish social networking user caused by ICTs also differentiate based on age and occupation. In this regard, students and individuals of age 20 and under have lower technostress levels than other groups such as farmers, retirees, housewives, and individuals of age 31 and older. The differentiation of technostress levels in occupations may be explained by cultural differences caused by the individuals' occupations. Students tend to use ICTs more than farmers, retirees etc.. Brod (1982) states that experience in use of technology are an important factor in technostress. As such, it can be said that individuals who use ICTs more suffer less technostress (Sonya, 2003). The point to be emphasized here is that regardless of occupation, this study was conducted on social networking users – individuals who frequently use ICTs. Technostress levels of individuals may show occupational differentiation if they are not internet users, or use ICTs less. Wang, Shu and Tu (2008) have established that individuals who endure more innovation and renewal in their work environments suffer greater technostress as opposed to those who endure it less. The differentiation in technostress levels based on age may be clarified by experience in ICT use (Sonya, 2003). Younger generations tend to be inclined to the use and integration of ICTs (Zemke, Raines and Filipczak, 2000). It can be said that experience, knowledge and skill regarding the use of ICTs lowers technostress due to the use of technology.

5. Recommendations

As a result of this study, which has shown that social networking users suffer a certain level of technostress due to the use of ICTs and that this level differentiates based on different variables (age, occupation, gender), the following recommendations may be made in accordance with previous literature on the subject (Harper, 2000; Sonya, 2003; Wang, Shu and Tu, 2008):

- Personal precautions: establishment of time management and a healthy environment (ergonomic concerns such as lighting, ventilation, noise, stance etc.), awareness of factors contributing to psychological pressure and personal development towards the establishment of necessary precautions, development of simple systems for the prevention of data loss regarding ICTs (the use of a UPS – uninterruptable power supply, use of simple backup software, a private/special e-mail account for passwords and so forth), the acceptance and acknowledgement of technology as a vital aspect of life and the ensuring of occupational developments to poise these technologies as advantages in professional life; these can all be listed as basic precautions to assist in the prevention of technostress.
- Organizational/environmental precautions: Ensuring the procurement of technologies by the employer/institution, providing the opportunity for personal development to employees or learners regarding the use of these technologies (seminars, conferences, courses etc.), subscriptions ensuring the awareness of new technological developments, activities such as the invitation of experts in a field, providing opportunities for the safe use of technology (licensed software, antivirus protection etc.); can be listed as precautions to be taken on an organizational/environmental level for the prevention of technostress.
- For the future researches, the ICT-related technostress level of people can be investigated with the people do not use Internet or the more general Internet users regardless of any platform or culture. Also, multi-cultural studies can be done with people of different culture.

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