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TECHNOPHOBIA VERSUS ICT AMONG TEACHERS IN HIGHER EDUCATION

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Abstract

The present article focused on the affective factors of technophobia among academicians. In this research, several university lecturers and students were chosen randomly and some semi-structured interviews were conducted. This study attempts to examine the Computer Anxiety for using ICT and identify the variables affecting technophobia. In the present paper, technology is not limited to computers and the Internet. Technology is referred to in general and the reasons for technophobia and people's reluctance to apply technology are the focal points of this research. Methodology Employed based on qualitative research. The secondary sources of this study are taken from various books, articles, diaries, proposals, official records, archives, Govt. Gazetteers, Manuals and sites. Finally, draw meaningful suggestions are offered.

Keywords: Computer Anxiety, Higher Education, ICT, Technology, Technophobia.

I. Introduction

In 1989, Davis (Davis, 1989) expressed Technology Acceptance Model (TAM) to clarify the potential user's activity intended for the appliance of innovative technology (King & He, 2006). This trend of analysis continued up to 2000 till Venkatesh and Davis (Venkatesh & Davis, 2000) introduced TAM2, and soon in 2008 Venkatesh and Bala (Venkatesh & Bala, 2008) posed TAM3. among these three models' tons of attention was given to the factors that cause acceptance of technology and this show the nice importance of technology in people's daily life. but technology has some issues together with its positive impacts, some issues which will have an effect on technology acceptance within the future. one among these problems may be a development referred to as "Technophobia". Hughes (Hughes, 2010) in his thesis, states that "technophobia is employed to explain the concern, discomfort, or anxiety towards the technology of varied forms". additionally, Korukonda (Korukonda, 2005) directly mentions dislike as a result of the speedy development of processed learning in education and coaching systems further as in the business organizations. Since technology is widespread in all respects of human life starting from the activity and academics to leisure time, the existence of fear-contacting technology can largely influence one's quality of life (Brosnan & Thorpe, 2006). Technology-enabled math education has gained prominence leading to a marked shift in perceptions of math education in modern India during the lockdown period of the COVID-19 pandemic. The role of e-learning and technology integration in mathematics education development and its effectiveness (Das, 2021). The utilization of ICT in education aims to boost the standard of teaching and learning and further on democratize access to education. For any university to stay globally competitive it needs to vary the normal means of delivering education to reply to the speedily ever-changing conditions in technology and society (Lee and Yeap, 2009). TPACK is partially in two-year pre-service teacher education but there is some lack of curriculum shortages are present. The scope of implementation of TPACK on Teacher training programs & the relationship between technology and pedagogy content (Das & Mitra, 2021). E-learning can continue to provide blended learning and disaster scenarios. In educational institutions, such programs should be established to ensure that no student who regularly studies educational communication technology is deprived of education because of region, social status, race, etc. Online educational approaches help and encourage classroom practices, but there is a compelling need to weigh the pros and cons of technology and harness its power (Das & Das, 2020).

What Is, Information and Communication?

Technologies [ICTs]

As per the definition utilized by United Nations, ICTs are often delineated as a varied set of goods, applications and services wont to produce, store, process, distribute and exchange data. Telephone, radio, tv currently referred to as ancient ICTs and comparatively newer ones- personal computers, mobile phones, WLL networks, satellite, wireless sets, I pods and net facilitate individuals to collect information and communicate through the same.

Significance of ICTs in Enhancing Learning

Information and communication technologies became a widespread means of producing and accessing learning. Technology-mediated learning is defined as any educational content or communication of content done through the use of technology. such as



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computers, mobile devices, phones, pods and even virtual reality. But the application of ICTs in Higher Education in India is not satisfactory level, though everybody concerned with higher education knows very well that ICT has a wide scope and limitless.

ICTS & Technophobia among teachers in Higher Education

ICTS & Technophobia among teachers in Higher Education benefit benefits for our coming generation. It helps in gathering the pieces of information which is normally not available through any other means or not easily available but has also made an impact on helping students to surf for the information which is normally not available to them. Being a teacher in a knowledge society, one has to deal with new knowledge and new ways of accessing knowledge, the networked world with new types of cooperation and collaboration, and a society in which knowledge plays a crucial role and lifelong learning.

ICT exemplified by the internet and interactive multimedia are obviously of great significance for teachers. The facility of video conferencing was introduced to impart knowledge by the UGC-CEC network with the help of ISRO and Doordarshan in the years 1992 and 1994 respectively. Information and Communication Technologies provide a more interactive and less deductive approach, where the class can interact with the content and context of the lessons digitally through the ability to capture, combine and manipulate information from a variety of sources. It needs to be effectively integrated into the formal classroom teaching and learning conditions. The use of ICT can make substantial changes both for teaching and training mainly in two ways. Firstly, the rich representation of information changes the learner's perception and understanding of the context. Secondly, the vast distribution and easy access to information can change relationships between teachers and learners. Through the integration of these technologies, communication becomes more seamless. It can also provide powerful support for educational innovations. Information and communication technology has become a widespread means of producing and accessing learning content in a university setting with the introduction of desktop computing and server technology. In the words of Michael Golden. Technology is a tool that has the potential to empower teachers at all levels".

But various questions have arisen in the mind of learned people

- How many teachers use technology in the classroom?
- How many teachers have a positive attitude towards using technology in the classroom?
- How many teachers are skilled in using ICTs at the higher education level?
- How many teachers are aware of educational technology for use in teaching and training at higher educational levels?

What Is "Technophobia"?

Because in the present context of globalization the goal of quality education for all is not possible without the use of technology in the classroom. Many factors contribute to the attitude and skills of using technology in the classroom by teachers in higher education. One important factor is 'technophobia'. Technophobia means any negative psychological reaction to technology either mild or severe. The people who shun technology are generally the people who don't understand it. Usually, technophobia inflicts the older generation, the generation who hasn't grown up with computers, complicated acronyms, or even calculators. Technophobia and computer phobia are terms that can be used interchangeably. Technophobes can be uncomfortable with many forms of technology. However, since computers represent the most frequently used aspect of new technology, technophobia is discussed concerning computers.

Types of technophobes

Anxious Technophobes - Individuals who show classic signs of being anxious when using a computer e.g. excessive sweating and shaking.

Cognitive Technophobes - Individuals who may appear cool, calm, and collected externally but are experiencing negative cognition internally e.g. I am going to lose all my work on my computer.

Uncomfortable Users - Individuals who show negative attitudes or slighter anxiety as they lack sufficient information about computers to use them effectively.

II. Objective

- To study the causes of technophobia.
- To find out the indicative of computer anxiety.
- To identify the variables affecting technophobia.



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III.Results

Causes of Technophobia

Teachers are not generally prepared in education programs to use the available technologies. Carolyn Mc McCarthy, an instructor and technology coordinator finds that "There is an absolute lack of technology skills in teachers that have been out in the field for quite a while." Various causes of technophobia are as follows:

- The main cause of technophobia is ignorance.
- There is over emphasis on merely building teachers' tech skills.
- They don't like that they are being taught by those younger than them, either a young adult or maybe even a child, which is the exact opposite of how the usual passing of knowledge system works.
- Colleges of education are not focusing as much on technological skills as other sectors.
- Most of the teachers of old age perceive that the fear of technology is often more the fear of change than the technology itself.
- Lack of equipment or antiquated equipment.
- The institution doesn't count technology work toward promotion/ tenure.
- A lack of training among established teaching practitioners.
- The amount of time required to learn new programs and create new instructional programs is extensive.

Because of this resistance in higher education, most new teachers enter the field technologically unprepared.

Symptoms of 'Technophobia'

In table 1 all behaviours identified as being indicative of computer anxiety are briefly explained.

Table 1. The Computer Anxiety.

Computer Anxiety	Breathlessness
	Dizziness
	Excessive sweating
	Nausea
	Dry mouth
	Shaking
	Heart palpitations
	Inability to speak or think clearly
	A fear of dying
	Becoming mad or losing control
	Avoidance of computers and the general areas where computers are located
	Excessive caution with computers
	A sensation of detachment from reality or a full-blown anxiety attack.

In 2013 Salamzadeh, briefly discussed the affecting variables for technophobia. In table 2 all the variables affecting technophobia are briefly explained (technophobia, 2013):

Table 2. The Variables Affecting Technophobia.

Factors	Variables	Description
Individual factors	Lack of individual skills	Lack of abilities and skills which disables the person in doing his jobs
	Lack of communication skills	Lack of series of skills which enable the person to communicate information in a way that he receives and comprehends it.
	Personality	The amount of influence of emotional, mental and behavioural patterns which can lead to lack of reluctance to use technology.
	Perceived complexity of use	The level at which the person believes that using a certain technology will cause more struggle and trouble for him.
	Perceived uselessness	The level at which the person believes that a certain technology is no useful for him.
Social factors.	Ethical problems	Mental evaluation of unpleasant consequences of technology application.



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	Cultural influences	The amount of the individual's anxiety to the entrance of foreign culture resulting in culture change due to new technology applications.
	Norms	The impacts of customary rules which can create some sort of reluctance to do something.
	Habits change	The level which the person likes to maintain the current situation and prevents himself to face with new and unfamiliar conditions.
Infrastructure factors.	General change in technology trend.	The level of mind confusion due to the rapid development of technologies.
	Law and regulation.	The impact of shortage or weakness of some regulations on the individual's reluctance to apply technology.
Moderating factors.	Lack of training.	The level of inability to use a technology due to the lack of training.
	Age.	The impact of age on technology application reluctance.
	Experience.	The impact of observing and experiencing a practical applying or not applying technology.

Suggestions to Overcome 'Technophobia' and Use of ICTs Comfortably

Careful and early introduction of technology is the key to avoid Technophobia. There are various suggestions to overcome technophobia such as -

- i. Consulting someone knowledgeable in both psychology and technology to introduce technophobes to modern offices is recommended.
- ii. The person who is teaching computers or any form of technology for that matter must be comfortable with that technology.
- iii. The teacher should walk the learner through the process of using a technological device first with the learner pushing the buttons.
- iv. Teachers must learn to use technology step by step by which they will get exposure to different ideas and information, thus they can expand their perspective.
- v. The person who is teaching technology must be calm, clear and very open to questions.
- vi. It is important to learn about technology by 'playing' with it.
- vii. Teachers who have negative reactions to technology should be told very clearly that they are not unusual.
- viii. Pitfalls are going to happen every day. From these pitfalls, we must learn lessons that help us to do things better the next time.
- ix. Learning is a lifelong process, so teachers should not hesitate to learn from students as every class has a computer whiz.
- x. It is crucial not to try to pack learning experiences into too short a time.
- xi. The introduction of technology should be in a non-evaluative atmosphere.

IV. Conclusion

Technophobia is a phenomenon intertwined with technologies, and as long as there are new technologies, there will always be a specific technophobia associated with it. The study showed that technophobia is independent from computer anxiety and has several hidden factors that differ from each other. Ultimately, technophobia was defined independently of other technologies that could provide it with the necessary differentiation from computer phobia.

The research has several contributions. First, the results of this research suggest that technophobia and computer anxiety are independent of each other. The symptoms of technophobia point to computer anxiety. Second, technophobia depends on a few factors related to variables. But these are not the only causes of technophobia. There are so many causes, direct and indirect, related to technophobia. In conclusion, he suggested some recommendations to get out of technophobia.

Future research: Future research is as fast as technology itself. Each new technology can have its own scale and previous research has many studies that do exactly that.

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