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# Evolution of technology acceptance in education

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### Abstract
In the era of digital humanities the use of technology in every field of life is ubiquitous. Today, people have become so technology oriented that completion of any task without the use of technology seems impossible. Its use can be seen in each and every field of our daily life either it is business, infantry, medical or education. So, there are always various factors contributing to the use any technology in our everyday life. There are some factors which motivate us to use a particular technology and there are some factors which decide that whether we are going to use that technology in future. So the investigation of these factors is as important as the usage itself is. By digging deep into investigating these factors lead us to the improvement of those tools which are not used or left after using once or twice. This paper presents a review of research conducted in last few decades. The paper also focuses on the various models of technology acceptance developed over the last few decades.

**Keywords:** digital humanities, technology, models of technology.

### Introduction
The use of technology in education is not a very new concept. Its use in education can be seen in various forms. Very initially in the form of radio, then in the form of recorded tapes, floppies, compact discs, television, projectors, computers and finally with the evolution of internet, technology has become a compulsory teaching aid in today's classrooms. It has made the task of teaching so easy and interesting that today no field of education is left untouched with it.

Various projects have been sanctioned to enhance the usage of technology in educational organizations. Various policies also have been made by the government to encourage the usage of technology. Khan Academy is a non-profit educational website created in 2006 by educator Salman Khan, a graduate of MIT and Harvard Business School. The stated mission is to provide "a free world-class education for anyone anywhere". Such steps taken by people prove their awareness about the use of technology. To learn here, on this platform is really very easy and so interesting that once you started working here you stay glued to your screen. Learning here is as simple as playing a game. What you need to do is just to log in with your Google or face book account. Person of any age and any gender can learn here several things in a very simple and interesting way at their own pace and according to their convenient. Kapil Sibbal the education minister of the nation distributed tablets among the students proves that role of technology in education is very important and it should be in the reach of as many people as possible.

The "hall in the wall" project aims to make those children educated who cannot go to schools regularly and it also provides them the opportunity to learn at their own pace, in their own way; because technology has the ability to break the barriers of space and time. Hole-in-the-wall Learning Stations seek to create a new paradigm in the learning process by providing unrestricted computer access to groups of children in an open playground setting. Such an open setting will use child's natural curiosity to stimulate learning. The learning station is set up in an outdoor playground setting which children can access at any time. It ensures that girls, who would generally not be sent to close room housing a computer, can now easily access the Learning Station in an open setting.

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So, with the use of technology, revolutionary changes can be brought in the education system and it can be used as a tool to teach the children with special needs also. The education system of our country requires a solid foundation of technological tools which can help to make the education system strong and effective. Technology always makes the tasks easy for us, in a much more efficient manner, saving our time and with more accuracy. So, it has been used in every field of life and in no doubt education also.

But some people use a particular technology for a short period of time and stop using and some technologies are used for a long period. So there are various factors which motivate to accept or reject a particular technology or motivate to use a technology for a short period or for a long period. The present study tries to study those factors which are responsible for the acceptance of a particular technology.

## Understanding New Media
New media is a 21st Century catchall term used to define all that is related to the internet and the interplay between technology, images and sound.
New media refers to on demand access to content anytime, anywhere, on any digital device as well as interactive user feedback, creative participation.

## Benefits of new media in education
As it is known that technology has no barriers of space and time so with the usage of new media, the process of education can be made not only more interesting and easy but also in reach of everybody. The people who are not able to get education due to various constraints can be benefitted with the help of new media.

It can be used not only for sharing ideas but also for active and healthy discussions which is possible only by reflecting on the given ideas and by providing innovative ideas in response. (Cheryl Amundsen & Elahe, 2008) [1].

New media should be incorporated in the course because it has various characteristics which can be helpful in various purposes. It makes the learners interactive and creative. It facilitates creative and transformational thinking in the learners. It breaks the barriers of space and time. A learner can create a very smooth relationship by taking initiative of making contact with the instructor. It saves time which was wasted earlier in approaching the instructor for any kind of help. Personalized learning and personalized teaching can be done with the help of new media. It allows the instructor to pay individual attention and in this way needs and requirements of a learner can be fulfilled accordingly. It shifts the burden of teaching from the teacher to others, like the learners themselves or experts. It is helpful in feedback also. An instructor can provide feedback by looking at the records and can compare and contrast the assignments of the students. (Bolanle A. Olaniran, 2008) [2].

Insung Jung *et al.* In 2002 says in their study that it overcomes the limitation of traditional distance education which has lack of interpersonal interaction. New media allows real time interaction [3].

Jose L. Arquero & Esteban Romero-Frias conducted a survey in 2013 to investigate whether new media can be useful in education. Most of the students said that with the inclusion of new media in education their active role can be increased. The students say that new media is highly helpful in content learning and doing team work. It motivates for work and not only inspires but also makes the task more interesting. Shy students can also express their point of view without any

difficulty. It is very helpful in promoting creative thinking also. It not only breaks the barrier of time and place but also the barrier between a faculty and a student. Through this medium a student can approach his/her teacher without any difficulty [4].

In 2008 Shivanjali Tomar has investigated and observed that underprivileged children are not getting proper education and new media can be a very good medium for their teaching. The education quality of our country is decreasing day by day whereas the enrolment of number of students is increasing. Students have different needs and requirements and new media can be a very good medium to improve their creativity level and skills [5].

In 2008 B.V. Pawar says that new media can be used as a very good platform for teaching & learning methods. It can be used as an independent platform and its access is very convenient. It is cost saving also. Content can be easily updated and students can be fully benefitted by the use of new media [6].

New media technology excites the students and makes study more interesting for them but it can become monotonous if not used in a proper and sophisticated manner. It can act as a novel source of information and instruction. By various features like animation etc. it can be used in various ways. It can also act as an effective means of communication. (Mara J. de Vries, 2001) [7].

## The process of Acceptance
Technology adoption can be defined as a process that begins with awareness of the technology and progresses through a series of steps that end in appropriate and effective usage. These steps are awareness, assessment, acceptance, learning, and finally results in usage.

Awareness – potential users learn enough about the technology and its benefits to decide whether they want to investigate further

Assessment – potential users evaluate the usefulness and usability of the technology, and the ease or difficulty of adopting

Acceptance – potential users decide to acquire and use the technology, or decide not to adopt

Learning – users develop the skills and knowledge required to use the technology effectively

Usage – users demonstrate appropriate and effective use of the technology

In 2012, Sunil Tyagi conducted a survey in 6 universities in the National capital region of India to analyze the usage of web 2.0 technologies in learning. Other objectives were to find out the purpose of their usage, to know their adoption stage, and to identify the tool used the most and to explore the benefits and contribution of these tools in education [8].

Haya Ajjan, Richard Hartshorne (2008) conducted a study to investigate the awareness of the benefits of Web 2.0 tools among the faculty members and to find out those factors which predict their decision to adopt these tools as a supplement in a traditional classroom. Decomposed theory of planned behavior was used as a framework [9].

Terence J.V. Saldanha & M.S. Krishnan in 2012 used the TOE framework to see the factors responsible for the propensity of an organization to adopt web 2.0 technologies. By formulating hypotheses they proved that importance to open standards, size of the organization, and knowledge intensity; these three factors are responsible for the adoption [10].

Fred D. Davis in 1989 conducted 2 studies to investigate the relationship of perceived usefulness and perceived ease of use with the acceptance of any technology. The studies find out that both the constructs are responsible for the acceptance of any technology but perceived usefulness is more responsible in comparison to perceived ease of use [11].

Bens Pardamean & Malio Susanto in 2012 the authors have used the UTAUT framework to assess the acceptance of blog technology by the students. Results have shown that social influence and performance expectancy have a significant role in the intention of usage whereas effort expectancy does not [12].

In 2008, Shawan and colleagues selected the technology acceptance model to investigate the acceptance of technology in academic context by faculty. Results have shown that Perceived usefulness has a strong relationship with the usage of technology, whereas perceived ease of use does not have a strong impact on the usage [13].

There is an immense list of studies conducted to study the acceptance behavior of technologies. Various frameworks have been used to find out the factors which motivate to adopt any technology, the usage of the technology, and the time of usage of the technology.

## Conclusion

Use of technology in all the fields of life makes our life easy and interesting. It is applicable same in education also. With the help of technology new aspects can be added to the present education system and it can be made more effective and innovative.

By studying various factors which are responsible for its acceptance, it can be made approachable to each and every student of our country. So, the importance of knowing the factors which are responsible for the acceptance and adoption of technology are equally important to its usage; because by understanding the acceptance behavior policies can be made accordingly to motivate its usage.

## References
1. Cheryl A, Elahe. The untapped learning potential of CMC in Higher Education In: Benefits of computer mediated communication. Canada. 2008, 1-14.
2. Bolanle AO. Human computer Interaction and the best mix of face-to-face and E-interactions in educational settings In: Benefits of computer mediated communication. USA. (Texas Tech University, USA). 2008, 49-61.
3. Insung J, Cheolil L, Junghoon L. Effects of different types of interaction on learning achievement, satisfaction and participation in web-based instruction Innovations in Education and Teaching International. 2002; 39(2):153-162.
4. Jose Arquero L, Esteban Romero-Frias. Using Social network Sites in higher education: an experience in business studies Innovations in Education and Teaching International. 2013, 238-249.
5. Shivanjali T. Learning over Education: Democratizing Education through the Internet.
6. Pawar BV. Web based School Education in India: Problems, considerations, approaches, & important features of web-based learning environment.
7. De Vries MJ. New media in technology education: threats and opportunities. A conference summary, Proceedings of the PATT-11 International Conference on Design and Technology Educational Research, Eindhoven, the Netherlands. 2001; 8-13:253-256.
8. Sunil T. Adoption of Web 2.0 technology in higher education: A case study of universities in National Capital Region. 2012; 8(2):28-43.
9. Haya A, Richard H. Investigating faculty decisions to adopt Web 2.0 technologies: Theory and empirical tests 2008; 11(2):71-80.
10. Terence JVS, Krishnan MS. Organizational adoption of web 2.0 technologies: An empirical analysis 2012; 22(4):301-333.
11. Fred D. Perceived ease of use, & user acceptance of information technology. 1989; 13(3):319-340.
12. Bens P, Malio S. Assessing user acceptance toward Blog technology using the UTAUT model 2012, 6(1).
13. Gibson Shanan G, Harris Michael L, Colaric Susan M. Technology acceptance in an Academic context: Faculty acceptance of online education. 2008; 83(6):355-359.