



Usability of Educational Technology: Global Perspective

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Abstract: To enhance and improve process of education, the work is continuously in progress. Different researchers and educationist are busy to facilitate the learner as well as the teacher. Technology is also on the way of progress to make it user friendly. Despite of the use of technology in every field, the user faces problems while using and updating it. For its efficient use, some guidelines are always required by keeping in view the use and challenges of technology. The study was conducted in the form of documentary analysis that how new technology can be used to help and improve the process of teaching and learning. The objective of the study was to investigate the use of technology in the field of education. The results and discussion shows that with the use of this, the process of teaching and learning will be efficient and effective.

Keywords: Technology, Augmented Reality, 5G, Zin Class

1. Introduction

2019 technology is not like branded gadgets but it will be more like to improve the infrastructure and use of resources, it will be more than the expected. Some experts say that the difference between the old and 2019 technology is the computerization. When making prediction not only about technology but even about educational technology is a great room for the starting of science fiction. The engineers and the authors will use the work of writers and authors as a motivation for creation [2].

The authors argue that the 2019 will be like computerization as a whole. They further say that computerized objects like robot is already using an industry with unbelievable and unexpected accuracy. This will be included in the course of next generation and even at home [3].



Figure 1. Educational Technology of 2019 a steps towards complete globalization [1].

2. Methodology

A mix method approach was applied to analyze and interpret the results. Documentary analysis and two algorithms from computer science were used for the purpose.

3. Results and Discussion

3.1. Educational Technology Augmented Reality

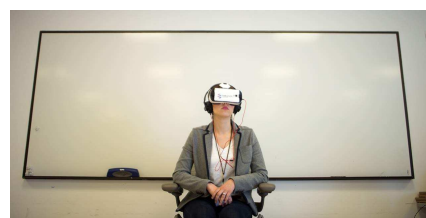


Figure 2. Augmented Reality [1].

In this field, the release of AR glasses were warmly welcomed in the market [4]. The students especially of medicine and manufacturing have focused to use like in surgery. Another example is that of laparoscopic which can be used to visualize the data and workflow process [5]. Some of the experts take it as a next MOOC's (Massive Open Online Course) [6].

3.2. Educational Technology 5G (5th Generation)

This is better if the Wi-Fi is able to run and connect hundreds of phones, laptops, tablets vending machine etc. [7]. This is 5G which will give a very high speed. It is possible to use home routers is a use of educational technology instead of Wi-Fi [8].

Some companies are trying to use 5G in a new way to utilize teacher expertise and to facilitate the students with special needs [1].

3.3. Educational Technology Generation Zin Class

With high bandwidth, now the students' wants to watch videos instead of reading text [9]. Students of generation Z think that they will use technology in positive way [10].

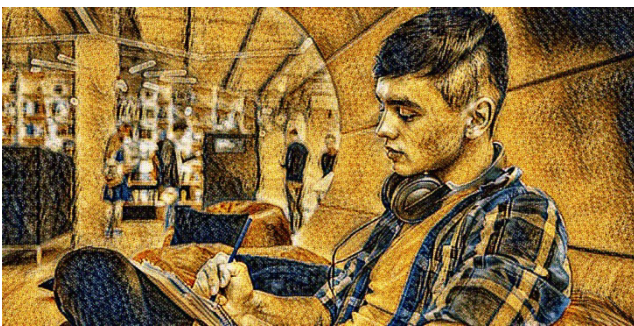


Figure 3. Zin Class.

3.4. Educational Technology 2019 Inclusion

The educational institutions have to work to meet with the accessibility guidelines as some of the students complaint that they are unable to access the internet [11].

Just like students the teachers also some time feel difficulty to proper access to technology. Even the research indicates that students with disabilities have trouble to complete their studies [12].

The technology may help the students who have difficulty to attain physically because of having disabilities [13].

3.5. Educational Technology 2019 Security and Ransomware

It is another technology which will help to restore the data after loss by ransomware [14].

When you have loss access to your data as it hit the academics in 2016 [15].

After analysis and discussion it is observed that technology is a facility not the replacement of human being. Technology and educational technology is to be used for the acceleration of teaching learning process. Without educational technology, it is not possible to teach. keeping in mind that applying and adopting technologies in the field of education in the absence of proper training and arrangement will always lead to dissatisfaction of the teacher as well as the learners.



Figure 4. Security and ransomware [1].

Some are the challenges which may require Proper care as how it is possible to train all the teachers

and students to recover the data after loss. Installation and updating of antivirus softwares.

Availability of power if and when required.
Cost to purchase and install the infrastructure

3.6. Experiments and Execution

After making discussion from theoretical side, now some data has been taken to perform the experiments. Two algorithms were used: one is our own develop SI (Salam, Irshad) algorithm and the other one is a well-known Apriori algorithm. 50 record were loaded. The results produced are given.

Table 1. Apriori Algorithm Results.

Support provided	Count of the support	Frequent list of the item
20	39	L1
20	34	L2
20	37	L3
20	37	L4
20	39	L5
20	27	L1, L2
20	28	L1, L3
20	39	L1, L4
20	38	L2, L3
20	38	L2, L4
20	39	L3, L4
20	20	L4, L5
20	28	L1, L2, L3
20	20	L1, L3, L4

Table 2. SI Algorithm Results.

Value provided	Difference	List of the item
80	70	L1, L2
80	39	L1, L3
80	34	L1, L4
80	74	L1, L5
80	65	L2, L3
80	72	L2, L4
80	78	L2, L5
80	6	L3, L4
80	76	L1, L2, L3
80	52	L1, L3, L4

Some more amount of data were added to check the accuracy of the results produced by both the algorithms

Table 3. Apriori Algorithm Results.

Support provided	Count of the support	Frequent list of the item
20	100	L1
20	97	L2
20	110	L3
20	107	L4
20	140	L5
20	77	L1, L2
20	80	L1, L3
20	80	L1, L4
20	79	L2, L3
20	49	L2, L4
20	49	L3, L4
20	40	L4, L5
20	38	L1, L2, L3
20	40	L1, L3, L4

Table 4. Apriori Results.

Value provided	Difference	List of the item
80	70	L1, L2
80	39	L1, L3
80	34	L1, L4
80	74	L1, L5
80	65	L2, L3
80	72	L2, L4
80	78	L2, L5
80	6	L3, L4
80	76	L1, L2, L3
80	52	L1, L3, L4

After adding some more amount of data the algorithms were executed the results produced are as below.

Table 5. Apriori algorithm Results.

Support provided	Count of the support	Frequent list of the item
20	100	L1
20	97	L2
20	110	L3
20	107	L4
20	140	L5
20	77	L1, L2
20	80	L1, L3
20	80	L1, L4
20	79	L2, L3
20	49	L2, L4
20	49	L3, L4
20	40	L4, L5
20	38	L1, L2, L3
20	40	L1, L3, L4

Table 6. SI Algorithm Results.

Value provided	Difference	List of the item
80	70	L1, L2
80	39	L1, L3
80	34	L1, L4
80	74	L1, L5
80	65	L2, L3
80	72	L2, L4
80	78	L2, L5
80	6	L3, L4
80	76	L1, L2, L3
80	52	L1, L3, L4

Table 7. Apriori Algorithm Results.

Support provided	Count of the support	Frequent list of the item
20	100	L1
20	97	L2
20	110	L3
20	107	L4
20	140	L5
20	77	L1, L2
20	80	L1, L3
20	80	L1, L4
20	79	L2, L3
20	49	L2, L4
20	49	L3, L4
20	40	L4, L5
20	38	L1, L2, L3
20	40	L1, L3, L4

Table 8. SI Algorithm Results.

Value provided	Difference	List of the item
80	70	L1, L2
80	39	L1, L3
80	34	L1, L4
80	74	L1, L5
80	65	L2, L3
80	72	L2, L4
80	78	L2, L5
80	6	L3, L4
80	76	L1, L2, L3
80	52	L1, L3, L4

After performing experiments the largest item set produced by both the algorithm are.

Table 9. Largest Item set.

L1, L2, L3
L1, L3, L4

This shows the accuracy and reliability of the algorithms. From the results, it is inferred that by using technology properly in pairs like printer with computer and scanner will help to enhance the production. These may be used by selecting different type of technology in pairs. This will also help the organization that what are the trends in markets like Microsoft is used Office package which contains Microsoft Word, Microsoft Excel, Microsoft PowerPoint and Access in combination because of its demand in the market. On the basis of discussion and experiments following recommendations were drawn:

4. Recommendations

- Proper training is necessary
- The issue of security is to be considered while going online
- Special needs are to be taken while using for disabled students
- Technology is not human replacement rather its work is to facilitate the humans
- Technology can be used to enhance the process of education
- Educational technology can be used to educate the students with special needs. Into subsections or may be combined

5. Conclusion and Future Work

From the discussion, it is clear that use of educational technology is better for the teachers as well as the students. Proper use of educational technology can enhance the process of teaching and learning. In present, it is not possible to teach and learn without technology. But to make its use fruitful, it is necessary to take care like to protect the data from loss. In future, the research may be conducted to update the personnel in education especially related to teaching and learning continuously. The study may be conducted from different angles using other methods.

Conflicts of Interest

The authors do not have conflict of interest.

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