



Virtual Education: A Brief Overview of Its Role in The Current Educational System

José Miguel Orellana Parapi¹, Lilis Imas Maesaroh², Basuki³, Edi Sunjayanto Masykuri⁴
{jose.orellana0106@gmail.com¹}, {lilisimasmaesaroh@gmail.com²}, {basuki@umpwr.ac.id³}
{esunjayanto@umpwr.ac.id⁴}

Chemical faculty at University of Cuenca, Cuenca – Ecuador¹

SMAN 4 Garut, Jawa Barat, Indonesia²

English Language Education, Universitas Muhammadiyah Purworejo³

English Language Education, Universitas Muhammadiyah Purworejo⁴

Abstract. Virtual education is a growing and evolving system that creates new opportunities for forming and upgrading people's skills with a non-presential factor, which allows students from different regions and backgrounds to gain instant access to quality education and knowledge. In recent years, many online platforms have been joining to these new systems allowing to create a virtual environment, even professional institutions, such as colleges and universities, are offering their entire specialty in different online programs. Although, online education has evolved and improved since its apparition after the internet commercialization, many problems still remain unsolved and challenging its effectiveness; self-motivations and virtual drop-out are one of the common factor among virtual learners, besides the lack of required technology and resources in different places, especially in developing countries. Even there are problems, virtual education is changing the way how we consume educational content and it is helping to connect students and teachers all over the world in a gain-to-gain way, so in the coming years, its role is expected to be more critical in our education system.

Keywords: Virtual education, issues, quality, online platforms.

1. Introduction

Education is one of the most important activities we go through while we grow up, that is because we need to generate insights and ideas that will help us to solve daily situations and deal with ongoing changes in the environment. While we age, we also experience the necessity to create new connections and patterns that shed light onto certain problems and events.

The necessity of new ways of education has increased considerably in the last centuries, partially, due to the rapid increment on online resources and technological gadgets, which has enabled a wide range of opportunities to generate and share information across multiple regions and areas. The increment in education quality has helped to increase the GDP value in different regions [1]; besides increasing knowledge, it has allowed people to make better decisions and to take actions wisely.

In recent decades, thanks to the evolution and expansion of technological devices, it has been created new virtual classrooms and environments [2]. These spaces have allowed multiple interaction between students from different parts and different backgrounds. Additionally, the costs of creating and exploring virtual environments have decreased partially to the demand and offer than the market and society has required, which makes possible better and more complete resources with better quality [3].

Nevertheless, online learning has still many problems and challenges that needs to go through before being accepted and globalized, two of which are the lack of access of the whole population to the required and necessary devices and connections [4], and the lack of complete engagement with the classes and the online material [5].

2. An overview to online teaching and learning.

2.1. Characteristics of online teaching

With the arise of a connected world, the material and content of the teaching strategies need to be deeper than years ago. This evolution has to be systematic and consistent to match the current requirements and skills necessary to survive in the digital era [6], just like humankind, the education system requires ongoing progress and new systems of teaching and acquiring information. Virtual education is one of the new changes than has surged as an alternative to many students than desire to get knowledge on a self-pace speed.

Due to the integration of digital and virtual devices and concepts, the traditional classroom can be virtualized, this has the potential to compete or complement currents teaching methods and techniques [7], but there are still some changes that need to be made in order to get the same level of quality.

One of the most noticeable advantages of online teaching is the wide disposition of different materials and instruments to be used to create fruitful experiences [8], such tools can be:

- 3D virtual worlds and environments
- Wiki and online repositories
- Blogs and posts
- Discussion bords and virtual meetings
- Videos and documents
- Online libraries and registers

2.2. Evolution of virtual education

At the beginning, education was taught completely in a traditional classroom with an audience and with presential students, the concept of virtualization was not presented until the last years of the 19th century with the development of the internet [9], since then a noticeable increment on participation has been created, especially in technological subjects [10], this new development allowed people to start taking and upgrading their skills to cope new challenges and to get new opportunities in the changing world.

One of the biggest changes and evolutions that online learning has experienced is the improvement of a collaborative learning environment which is the integration of constructing their own learning through quality experience rather than limiting the material to lecture only formats, which has enhanced the total quality and dimension of possible subjects and options to access online resources and classrooms.

Regarding evolution, big changes have been made since the first apparition of this virtual environment, the principal components are the interactivity, collaboration, interest driven and differentiation, material with appropriate resources, and the correct implementations and communication [11].

Since the commercialization of internet, online education has been growing at an incredible speed, leading to a new virtualization of environment and scenario simulation [12]. This has also been affecting the necessity of increasing the material and content to be offered to the students and self-learners, besides

it has been possible to increase the transition of material to remote students, even from different regions or countries, breaking barriers regarding to locations and available options.

Some of the trending platforms for self-learners have been improving their offer and expanding their scope, these web sites are educating thousands of students and forming edge cutting professionals just like normal and traditional institutions, to name some ones there are:

- Coursera
- EdX
- Udacity
- Alison
- Class central
- Brilliant
- Khan academy

Some of the named sites are free with the option of paid courses and certifications; other required a pre-paid subscription. In addition, a wide spreading video web site, such as YouTube, has granted the desire of many students to get access to many online free courses or explanatory videos and tutorials, while universities and colleges are also offering professional courses through their platforms.

2.3. Setbacks and challenges of virtual education

At the same speed than virtual education and online teaching has been integrating into society, some concerns have been ongoing regarding to the learning experience and quality of the material presented, which has been improving regularly, although some problems are still present at the moment. Among the most important issues that need to be solved are [13]:

- Lack of interest and enthusiasm from certain students
- Lack of necessary technological skill in teachers or material providers
- Relative short span of attention and distractions
- Access to internet or equipment related to virtual education
- No immediate feedback and lack of interaction with teachers and classmates
- Internet speed and accessibility

Another problem is the insufficient background knowledge that some students might present before taking online classes, especially when there is no clear previous knowledge requirements or formation, indeed, this has been found to be one of the most common causes of drop-out from online platforms [14].

Although, some of these situations have been resolved by the motivation of the students and teachers, other problems still exist, which need to be taken down before getting a complete and involving virtual education and online teaching. Nevertheless, some problems are beyond the reach of the students and teachers themselves, such as the accessibility to the proper resources and materials, which is a latent problem in developing countries and nations, besides, the language barrier and the lack of proper vocabulary might represent an obstacle for some virtual learners located in remote and distant places.

3. Conclusion

The advance and evolution of new technologies have been increasing the accessibility and usage of virtual platforms and environments, among these developments one of the sectors that has improved is the educations system, which some decades ago was completely personal interaction face to face, but now it can be virtualized and spread all around the world in just a matter of hours, forming students from beginners to experts through online classes and with online resources.

Many self-paced web sites have been leading the online education system, besides the college driven courses and programs than have formed multiple and dedicated students. Nevertheless, drop-out from online classes has also been increasing, primarily because of the lack of necessary equipment in some families, the internet requirements and the lack of self-motivation from students and teachers.

Even with setbacks and problems that online education and classroom virtualization present, it is still a big opportunity for many learners that search for ways to increase and gain new skills to face current problems and situation, the trend of virtual educations shows us that in the future, we can expect advanced and more user-friendly environments where people have access to knowledge remotely and easily.

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