

# **Virtual Education in Health Emergencies: Increasing the Use of Technology in University Education**

**Zulema Kayry Pineda La Serna**  
**Universidad César Vallejo**

**Alex Lope Lope**  
**Universidad Nacional Mayor de San Marcos**

**Denis Yanin Ulloa De La Cruz**  
**Universidad Nacional Agraria**

**Catherine Luz Pérez Salas**  
**Pontificia Universidad Católica del Perú**

**Linda Shardin Flores**  
**Superintendencia Nacional de Educación Superior Universitaria**

*The onset of the pandemic forced people to undergo fundamental educational and social change, creating other situations and lifestyles where technology has become commonplace. The face-to-face became the virtual space where telecommunication changed to the information channel where the work of distance learning has been built.*

*This article aims to reflect on how the change brought about by the pandemic has affected the learning-teaching of university students and the impact of the pandemic on their studies. Information was gathered by searching for bibliographical information and analyzing the different sources found.*

*Keywords: technology, teaching and learning, university teachers, virtual education*

## **INTRODUCTION**

The importance of online education in 2020 is an unprecedented reality; changes in global educational practices and in the current education system have emerged. Social, cultural and economic disparities have been highlighted in over 180 countries affected by the COVID-19 pandemic (Bravo-García and Magis-Rodríguez, 2020).

The education system must respond to a new scenario: it is impossible to show up in schools (Porlán 2020), and the fact is that most private universities are not prepared for this challenge. Therefore, students

and teachers were affected by the suspension of face-to-face teaching and readjusted their activities to virtual models (Cabrera 2020).

Like the entire world, the country suspended its face-to-face education activities and converted them to virtual ones to avoid contagion within the institutions; that is why virtual education is a necessary option to continue teaching in universities.

Virtual education provides greater management of time, space, and distance. This has provided greater learning opportunities for all students (Oliveros, Fuertes and Silva 2018).

For several years now, the challenge for the education system has been to maintain education's vitality and promote purposeful learning growth. There are two allies within education: its teachers and magicians, more precisely, teachers through magic. This presents an unprecedented challenge, as most teachers have to learn to work in a virtual environment and be responsible for teaching students to work in the space (Bonilla-Guachamín, 2020).

Virtual education is defined as distance learning through cyberspace, with the connection and use of the Internet and the ability to create new communication situations between teachers and students without time or space (Bonilla, 2016).

Virtual education has become very relevant nowadays. It has become a link between students and the innovation of teaching-learning. Many teachers have had to update themselves not only in using technological tools but also in how to reach students, and now, with the return to face-to-face teaching, it must be a support for it. (Salinas, 2021).

The above considerations aim to highlight the use of technology in higher education during the COVID-19 pandemic in 2020 and during it, and to analyze the reality of education in Peru.

## RESEARCH DEVELOPMENT

An examination of educational quality is conducted in the literature review article. This analysis seeks to determine the economic, geographical, and technological environment university students are a part of in a digital learning program.

The method used is a technical documentary analysis based on a biographical review of salient facts and an examination of the scientific literature on the subject. The Hemerographic test aims to analyze and measure specific metrics related to the use of technology. Besides the resources used and pedagogical strategies teachers have devised with distance learning courses because of the pandemic review the scientific literature has reviewed several surveys from Scopus, Web Science, Google Scholar, SciELO and others with scientific evidence on the subject over the last few years.

Connectivity is key to the advance of educational technology. It is difficult to imagine a strategy that transforms learning for all students without connections in schools and families, regardless of geographic location or student characteristics. Without adequate connectivity, the return on investment across devices and applications is reduced, and access to online educational resources is limited.

The technological transformation of systems cannot take place without the support and involvement of teachers. The pandemic highlights teachers' key role in successfully implementing new technology initiatives, as well as the need for capacity building, especially in the ICT sector. Indeed, bringing technology into the classroom (live or virtual) will not enhance learning if it is not available and useful to teachers or if they do not have the skills to use it effectively.

Also, on the one hand, enhancing the usability and usefulness of technological tools requires close cooperation between the different actors in the educational ecosystem, especially teachers and administrators. In this way, better tools can be developed for the genuine needs of teachers through feedback during the development, creation, and management of content.

This article aims to consider the impact of transforming from classroom to e-learning during the pandemic and to look at the hybrid model that can now be used in the return on face-to-face learning. Telecommunications influence the working day, education, and the general existence of today's society.

So, the challenges faced by teachers were to be about the emotions of young people, not just transmitting content, but a step further. It was an atypical way of learning. The content of the dissemination

article is based on interdisciplinarity, connects educational issues with the reality that afflicts humanity, compares it with the situation in other countries, elaborates statistics in real-time, highlights, creates discussion forums, and develops unique skills. Form a comparative opinion to educate the learner. Education in genuine cases should be done with your audience and predecessors in mind.

In addition, a challenge for teachers is also to transform an asymmetric virtual space into a symmetric space. This space allows each party (student or teacher) to participate in forums, and discussions on an equal footing. In this way, we can create empathy, trust, self-control and entrepreneurship as essential elements to unify the sense and meaning of life in the world and relationships with others.

Also, in the course of education and learning during the pandemic, the existence, thinking and behaviour of issues related to cyberspace management must change and the teaching and learning methods are necessary. Thus, in this context, the teacher is “a skilled mediator of a conflict who, through creativity, negotiates the meaning that his or her actions have unified and makes an important contribution to maintaining the stability and balance of the context in that context. engaged”.

During a health emergency, another key mandate of e-learning involves families, adults, and adolescents, who are at the heart of the process. The curriculum is directly responsible for monitoring and managing attitudes and behaviors. Learning in the new reality of the company in recent times follows the identification of learning styles, the control of space and time, the relative technical and social emotions, the maintenance of values, and their development according to an institutional orientation.

Also, one of the challenges of playing the internal family role in learning is to communicate regularly to participate and encourage cooperation, problem-solving, communication, and the development of a sense of belonging cooperation, problem-solving, social networking and balanced use of resources. Therefore, adolescents should be attentive to their own needs and reflect their feelings and thoughts in other techniques.

This is, therefore, a qualitative and accurate study of the social education aspects that occurred in the virtual environment during a health emergency. The information was collected through a systematic search of materials provided through systematic reviews. This study is supported by hermeneutic methods to help interpret the information.

## **DISCUSSION**

The technological transformation of systems cannot take place without the support and involvement of teachers. The pandemic highlights teachers' key role in successfully implementing new technology initiatives, as well as the need for capacity building, especially in the ICT sector. Indeed, introducing technology in the classroom (live or virtual) will not enhance learning if it is not available and useful to teachers or if they do not have the skills to use it effectively.

Also, on the one hand, enhancing the usability and usefulness of technological tools requires close cooperation between the different actors in the education ecosystem, especially teachers and administrators. In this way, better tools can be developed for the actual needs of teachers through feedback during the development, creation, and management of content.

Developers created complex platforms during the pandemic but didn't use them because of their complexity. Social networking platforms have become even more relevant in the educational field, because of their high usefulness and recognition.

## **CONCLUSIONS**

The pandemic has spurred the development of additional measures to facilitate access to existing infrastructure and, in most cases, stimulate immediate investment in connectivity. Telecommunications companies in particular and governments have made valuable short-term efforts to increase access to educational data. However, several problems hamper the scalability and sustainability of these operations. One of the biggest operational challenges is the lack of up-to-date data needed to assess household access distances and develop targeted initiatives, such as the distribution of devices or contracts.

## RECOMMENDATIONS

To design an appropriate training plan that meets the assessed needs, the team is encouraged to work together to develop a single framework of competencies, region and action, resources, and utilization and coordination of existing frameworks. To train teachers with ICT, it is essential to have a framework that explains the digital competencies they need. This makes creating a national training and assessment plan that meets these requirements easier. You do not have to start from scratch to develop these frameworks. Regional frameworks can be built on existing frameworks.

## REFERENCES

- Aguilar-Gordón, F., & Chamba, A.P. (2019). Reflexiones sobre la Filosofía de la Tecnología en los procesos educativos. *CONRADO. Cienfuegos*, *XV*(70), 109–119. Retrieved from <http://conrado.ucf.edu.cu/index.php/conrado>
- Alhumaid. (2020). *Qualitative evaluation: Effectiveness of utilizing digital and social media in education*. <https://doi.org/10.5281/zenodo.3987663>
- Almirón, M.E., & Porro, S. (2014). Los docentes en la Sociedad de la Información: Reconfiguración de roles y nuevas problemáticas. *IE Comunicaciones: Revista Iberoamericana de Informática Educativa*, (19), 17–31. Retrieved from <https://dialnet.unirioja.es/servlet/articulo?codigo=4794547>
- Aparicio González, D., Tucho, F., & Marfil-Carmona, R. (2019). The dimensions of media competence among Spanish university students. *Icono 14*, *18*(2), 217–244. doi: 10.7195/ri14.v18i2.1492
- Beaunoyer, E., Dupéré, S., & Guitton, M. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in Human Behavior*, *111*, 106424. doi:10.1016/j.chb.2020.106424
- Bonilla, L.A.G. (2016). Deliberación entorno a la Educación Virtual. *Interconectando Saberes*, (1), 77–89. Retrieved from <http://is.uv.mx/index.php/IS/article/view/1112>
- Bonilla-Guachamín, J.A. (2020). Las dos caras de la educación en el COVID-19. *CienciAmérica*, *9*(2), 89–98. <http://dx.doi.org/10.33210/ca.v9i2.294>
- Bravo-García, E., & Magis-Rodríguez, C. (2020). La respuesta mundial a la epidemia del COVID-19: Los primeros tres meses. *Boletín sobre COVID-19 Salud Pública y Epidemiología*, *1*(1), 3–8. Retrieved from <http://dsp.facmed.unam.mx/wp-content/uploads/2013/12/COVID-19-No.1-03-La-respuesta-mundial-a-la-epidemia-del-COVID-19-los-primeros-tres-meses.pdf>
- Cabrera, L. (2020). Efectos del coronavirus en el sistema de enseñanza: Aumenta la desigualdad de oportunidades educativas en España. *Revista de Sociología de la Educación-RASE*, *13*(2)(Especial, COVID-19), 114–139. doi: 10.7203/RASE.13.2.17125
- Fernández Márquez, E., Leiva-Olivencia, J.J., & López-Meneses, E. (2018). Competencias digitales en docentes de Educación Superior. *Revista Digital de Investigación en Docencia Universitaria*, *12*(1). <http://dx.doi.org/10.19083/ridu.12.558>
- Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life – How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management*, *55*. doi: 10.1016/j.ijinfomgt.2020.102183
- Manca, S. (2020). Snapping, pinning, liking or texting: Investigating social media in higher education beyond Facebook. *The Internet and Higher Education*, *44*, 100–107.
- Ola, A.L. (2020, June 30). *Coronavirus: La deserción escolar es una amenaza pospandemia*. Retrieved from <https://forbescentroamerica.com/2020/06/30/coronavirus-la-desercion-escolar-es-una-amenaza-pospandemia/>
- Oliveros, J., Fuertes, L., & Silva, C. (2018). La educación virtual como herramienta de apoyo en la educación presencial. *Documentos De Trabajo ECACEN*, (1). doi: 10.22490/ecacen.2559

- Oraá, J., & Gómez, F. (1997). *La Declaración Universal de los Derechos Humanos: Un breve comentario en su 50 aniversario*. Bilbao, España: Instituto de Derechos Humanos – Universidad de Deusto.
- Organización de las Naciones Unidas. (2020). *Objetivo 4: Garantizar una educación inclusiva, equitativa y de calidad y promover oportunidades de aprendizaje durante toda la vida para todos*. Retrieved from <https://www.un.org/sustainabledevelopment/es/education/>
- Porlán, R. (2020). El cambio de la enseñanza y el aprendizaje en tiempos de pandemia. *Revista de Educación Ambiental y Sostenibilidad*, 2(1), 1502.  
doi:10.25267/Rev\_educ\_ambient\_sostenibilidad.2020.v2.i1.1502
- Segrera, Paez, & Polo. (2020). *Competencias digitales de los futuros profesionales en tiempos de pandemia*. <https://doi.org/10.5281/zenodo.4278352>
- Segrera-Arellan, J.R., Paez-Logreira, H.D., & Polo -Tovar, A.A. (2020). *Competencias digitales de los futuros profesionales en tiempos de pandemia*. <https://doi.org/10.5281/zenodo.4278352>
- UNESCO. (2020). *Education: From disruption to recovery*. Retrieved from <https://en.unesco.org/covid19/educationresponse>
- Villanueva, L. (2020, September 15). El gran reto de la educación virtual en tiempos de pandemia. *Fundación Wiese*. Retrieved from <https://www.fundacionwiese.org/blog/es/el-gran-reto-de-la-educacion-virtual-en-tiempos-de-pandemia/>