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DOI: <https://doi.org/10.3126/ps.v23i1.77525>Available: <https://www.nepjol.info/index.php/ps>**E-learning in Nepal: Bane or Boon?**

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Email: rrcampus72@gmail.comORCID iD: <https://orcid.org/0000-0002-0875-3248>**Abstract**

The study aims to delve into the Gurukul education system and its shift to e-learning caused by COVID-19 in pedagogical delivery in Nepal, that helps to comply with the world market. E-learning refers to web-based pedagogy that integrates information and communication technology (ICT). It not only helps in delivering quality education but also boosts up digital literacy. The breakthrough in scientific technology has swarmed all fields, including education, so that e-education has become a must to overcome illiteracy and backwardness of the nation. The study probes the evolution of distance learning amid the backwardness and illiteracy of Nepal, which can be outwitted, instrumentalizing computer-based teaching-learning. It also makes use of descriptive hermeneutics of the available literature focused on e-learning to reach the conclusion that online education in the Global South is a boon because it empowers the learners who have been unable to attend face-to-face classes.

Keywords: Global south, e-learning, ICT, pandemic, face-to-face

Introduction

Nepal has unique physical landscapes that spread from 70 to 8848 meters in height from the sea level. The mountainous terrain occupies 15% of the total area of Nepal. Likewise, the hill region holds 68% and the *Terai* has 15% (Department of Information, 2024). These geographical data indicate that along with the landlocked position, Nepal's geographical structure in itself poses a huge challenge to impart education across the country. Encapsulating these geographical challenges, UNICEF (2019) report claims that almost 34% of Nepali populations residing in rural areas have limited access to educational resources. As Nepal was combatting against its landscapes to cater to quality education, COVID-19 emerged and forced her to suspend physical classes in the educational institutions. To cope with the unexpected challenge resulted from the coronavirus pandemic, Nepal started experiential learning by using online classes through Zoom, Google Meet, Google Classroom, Microsoft Teams, among others (Gupta et al., 2020). Seeing the effective use of technology in e-learning in the Global north, Nepal is also devising Information and Communication Technology (ICT) strategies which would also escalate online teaching and learning. Because online learning in cyber era swarmed up by artificial intelligence (AI) has remained quite crucial, especially where knowledge is shared, and critically discussed via technological devices (Wang & Zhang, 2022). To be precise, online learning refers to an electronically supported learning that relies on web technology for teacher/students' interaction and the dissemination of teaching-learning materials that includes audio, video, e-text, visual animations, virtual tuition/training environments, and face-to-face live chats between the instructors and the learners.

The study explores the evolution of distance/ online learning that ensures the dynamic change of society. It is apparent that education plays a vital role in the transformative development of society. So, every regime pays attention to catering education via different modes of delivery. Among other forms of education, distance/ online education/ e-learning is a form of education where students use their electronic gizmos through the internet, to obtain knowledge. Because it allows for flexible learning schedules and is particularly popular among non-traditional students who need to balance their work or family commitments, and professions. Hooked on the need of online education, Nepal has also formally opened a forum for e-learning (Sharma et al, 2020). Because of the lack of transportation system and geographical inaccessibility in Nepal, students were deprived of furthering their higher education, which could accelerate their career in the future. Online learning navigates various educational delivery modes that exploit the internet to deliver courses and content. This mode of imparting knowledge helps to overcome the geographical barriers, enabling students to learn from any location. Before COVID-19, in Nepal, some radio stations and TV channels would air informal educational programs to boost quality education, especially targeting the board exam of class ten and twelve. In the context of higher education, mainly, graduate and undergraduate education, Nepal Open University (2016) and Tribhuvan University's Open and Distance Education Center (ODEC 2015) had conducted formal online education mode to involve students who were not able to pursue their education in a physical class. Now, Kathmandu University has also adopted e-learning modes to cope with the use of technology in information and communication. Above all, colleges and universities are using blended modes of teaching and learning courses.

Based on the above background, the study navigates the rise of online education in Nepal on the wake of the COVID-19 pandemic. To deter the pandemic, the World Health Organization (WHO) asked the global community on 11 March 2020 to launch lockdown and quarantine (Malla, 2024, p. 58), making running physical classes hard. Accordingly, on March 19, in fact, Nepal officially closed

all educational institutions to help contain the spread of COVID-19. However, a nationwide lockdown followed a few days later on March 24, 2020 (Sherchand, 2020). Since March, the pandemic kept approximately 8.2 million Nepali children away from their classrooms, jeopardizing their progress in education (Sharma, et al, 2020). Unsurprisingly, there were 96 countries across the world (Basilaia & Kvavadze, 2020) to shift from the traditional mode of learning to e-learning during COVID-19. To not hamper the learning environment and to help the children learn from tertiary to university, the government of Nepal has stepped up remote/ online learning, which has become a beacon to cater to quality education. Educators postulate that technology-based learning enhances teaching effectiveness and student engagement, offering new dimensions to learning experiences.

Recently, across the world e-learning has become a powerful tool in education. The accessibility of the internet and flexibility of online courses have made online education an integral part of higher education in the Global north (as cited in Kebritchi, et al, 2017), even in Global south where access to traditional educational institutions is often limited where online education can bring the transformative change in the society. Nepal's hilly and high mountainous landscapes, characterized by remote villages and sparse population density, pose significant challenges to conventional schooling. Technological advancements in e-learning offer a promising avenue to bridge the educational divide between urban and rural areas. However, implementing e-learning in Nepal's remote regions undergoes a multifaceted challenge influenced by infrastructural, social, and economic factors. This study assesses the need for e-learning to combat the backwardness of Nepalese society due to inaccessible landscapes to reach to school, postulating that technology enhances learning outcomes, improves accessibility, and ruptures the barriers posed by geographical structures.

Review of Literature

Using technology in distance teaching/ learning occupies high importance because it helps to bring tangible results. Technological intervention in education, particularly in the Global South and Nepal, like a mountainous country, has been widely studied. Educationists, Anderson and Dron (2011) foreground e-learning's flexible and scalable solution to educational access, making it especially useful in geographically challenged landscapes with limited physical educational infrastructures. Likewise, Boettcher and Conrad (2004) focus on the interface of technological teaching and learning concepts with change. They continue using the web as a true breakthrough in interactive presentation, response, collaboration, and involvement (Boettcher & Conrad, 2004, p. 2).

On the other hand, while writing the foreword in *The Online teaching survival guide: Simple and practical pedagogical tips* (2021) by Judith V. Boettcher and Rita-Marie Conrad, Pam McQuesten (2021) also refers to Covid-19 that forced the world community to adopt online mode in workplaces and education. According to McQuesten:

For more than two decades, people worldwide increasingly adopted online modalities as part of their everyday lives. Yet far too many education institutions—and teachers themselves—continued to treat online learning as an afterthought, rather than as an opportunity to implement new approaches to student learning. Early in 2020, a global virus pandemic abruptly jolted everything, creating an erratic, fast-moving present and an unpredictable future. Lives were disrupted. Businesses were upended. Healthcare was in crisis. Governments struggled. The threat of COVID-19 instantaneously shifted the educational experience for hundreds of thousands of students and teachers from traditional in-person instruction to learning and teaching online. The magnitude of that shift was unprecedented and, for the majority of educators, unimaginable. (Pam

McQuesten, 2021, p. ix)

McQuesten brings to the fore the crises caused by COVID-19 and the indispensable use of technology to combat such crises, which also compelled the global regime to pursue online learning and its pedagogical application.

Since e-learning is a new phenomenon in Nepal, a few studies examine how technology-based education initiatives are implemented in rural areas (Subedi et al, 2020). However, Gupta et al (2020) explores the contribution of COVID-19 to bring online an accurate alternative educational tool in Nepal (Gupta et al., 2020). Similarly, pointing to the lack of infrastructure and techno-friendly teaching community in Nepal, Subedi et al. (2020) unbox the practice of online classes. Since it is new to many colleges (teachers and students), there is no good access to electricity and internet services in most parts of the country (Subedi et al., 2020), which could hamper the learning process.

In tandem with Subedi et al. 's (2020) concern on the inaccessible internet facility, in a study by Sharma and Khadka (2018), they also explore the partial success of e-learning initiatives in Nepal. It is partially successful in urban centers, but its adoption in rural areas has been slow due to infrastructural challenges such as unreliable electricity and limited internet access. Espousing with Sharma and Khadka's (2018) inadequacy of infrastructural facility, Karki et al (2019) also noted that digital literacy remains a significant barrier to the effective use of technology in education, especially in remote regions where educators themselves often lack the necessary training. In addition, Dawadi et al. (2020) draw attention to the need to technically equip teachers. They state that in Nepal, it is vital that teachers should be provided with training opportunities for online teaching as almost all of them have not done the job before. A few organizations, such as Tribhuvan University, and Kathmandu University, Nepal, have started to conduct teacher training. Furthermore, University officials need to ensure that each student gets access to technology and the internet (Dawadi, et al., 2020).

While focusing on the need of the 21st century to address the learning of the differently capable community, Visser et al write, "For most people, technology makes things easier. For people with disabilities, technology makes things possible" (cited in Dawadi, et al., 2020, p.12). The exploitation of technology in virtual or real classrooms helps the general students and the differently abled community. Not only the Global North, which is technologically rich, but also the Global South, which is developing, is using the technology to cope with the challenges of the 21st century. According to Gause et al (2022), the increasing availability of technological devices, such as portable digital assistants, continues to transform the teaching-learning landscape, including technology-supported learning. These devices have become integral to modern education. Cloud computing services like YouTube, Google Apps, Dropbox, and Twitter are now essential tools in teaching and learning, significantly enhancing higher education, including nursing education. Their research shows the benefits of technology use in classrooms.

The aforementioned critiques discuss online classes' significance in imparting effective and quality education. Some of them have also pointed to the complexities of digital literacy, and they have also figured out the strategies to cope with the problems. Hooking on their studies, the study explores the need for computer/ internet-mediated learning (Anaraki, 2004) or online class to address the need of cyberge and AI swarmed era and probe its strength and weakness in rendering quality education. This study investigates how online classes have changed traditional modes of teaching and learning and the ways in which ICT tools help make the learning process easier, faster, and more reliable when educational institutions apply blended modes.

Materials and Method

The study makes use of interpretative hermeneutics of the available literature related to distance and online learning policies and strategies to examine the strength and challenges of e-learning in Nepal. In so doing, the study takes recourse to qualitative methods, including related data collection, close reading of the data, and their critical interpretation or review. After usurping such research steps, the study will critically analyze those contents to know if they aptly support or refute the probe of e-learning's possibilities and challenges in Nepal. To figure out why and how e-learning in Nepal can be a boon as the problematics of the study. For this purpose, postulates the following objectives:

- a) to explore the evolution of distance/ online education in Nepal
- b) to critically assess the need of e-learning in Nepal
- c) to evaluate the opportunities and challenges of e-learning.

The study reconsiders Nepal's low rank in GCI, which can be amended by developing technology-based pedagogy. The modern world is swarmed with technology, and technically proficient human resources can efficiently tackle 21st-century challenges. Therefore, the issue dealt in this study is pertinent and relevant to explore.

Discussion and Results

The archeology of education system in Nepali *Sanatan Parampara* (tradition) was based on *Gurukul* system in which the young adult students/ disciples would live in the hermitage to gain education (Pageni, 2016). While exploring the formal evolution of distance learning in Nepal, the study unbuttons the historicity of 1958 when adult education program used to be aired through radio (Pangeni, 2016). Later Distance Education Centre was established in 1994. There were strategic amendments in this program in 2007 and 2014 that rightly gave rise to Nepal Open University in 2016 to accelerate literacy both in tertiary and university level. Because Nepal's Global Competitive Index (GCI) was pretty miserable which was ranked 10th from the below in 2011 (Bajracharya, 2014). One of the major contributing factors to pretty poor GCI outcome was Nepal's pitiful higher education. Amid the eroding dignity of Nepal in global community, there is an increased demand for higher quality. What Nepal fall behind to bring quality education are insufficient education budgets and unformidable geographical structures where are scattered community (cited in Bajracharya, 2014). Therefore, e-learning approach has been initiated to upgrade qualitative literacy by empowering the teachers in Nepal. Nepal is attempting to expand Open and Distance Learning (ODL)/ e-learning which is postulated as a substitute education for those who are unable to enroll a conventional or face-to-face education. In sum, e-learning is a boon for them because it allows them to get education at home without hampering domestic chores if the learners have sound knowledge of modern technology, especially surging web browsers.

On the other hand, prior to COVID-19, there would be school level classes on radio, TV, printed media and centers for distance and open schools as a pedagogical tool, focusing on the students who were out of the mainstream of formal education. Put differently, there used to be exam-oriented teaching through aforementioned devices. When people had access to internet, Nepal's *Information Technology Policy (2000)* focused on distance learning with the development of information technology, planning to make use of IT accessible to all people (Ministry of Science and Technology, 2000). It was made to bring a paradigm shift in learning. Anderson and Dron (2011) call it new educational access. Besides this, to address the need of the time, in 2005, *National Curriculum Framework for School Education (2005)* introduced ICT tools in teaching (Ministry of Education and Sports, 2005). In 2006, Open and Distance Learning (ODL) Policy was launched by the Government of Nepal to enhance conducive

online learning portal in a remote area through the use of electronic devices. With many innovations, expansion and practices in 21st century, online classes could bring educational institutions into homes proving the concept of global village. Espousing with the technological breakthrough, Harasim (2000) argues that the invention of web browser in 1992 that made online education accessible to everybody offering new methodologies of teaching and learning. It also brought a drastic metamorphosis in online education.

To tune in with the growing use of computer technologies in collaborative learning (Boettcher & Conrad, 2004) because they help to interface people, the government of Nepal initiated the *ICT in Education Master Plan 2013-2017*. It ultimately helps to develop digital humanities, which was formerly called 'humanities computing', that focused on collaborative scholarly activities by the interface of computing in education (Paudel, 2020). Moreover, *ICT in Education Master Plan 2013-2017* in Nepal made an effort to skill up on ICT to both students and teachers to improve classroom performance, and increase access to learning materials as well as improve effectiveness and efficiency with a vision of producing globally proficient human resource (Ministry of Education, 2013). The same vision, Tribhuvan University (2019), has aimed to achieve quality higher education by 2030. As a pedagogical tool, ICT has been an integral part of education as per the demands of the new era (Cited in Kebritchi, et al, 2020). Commending on the global use of online education, Picciano (2016) states that the development of digital technology in higher education has integrated data communication systems and collaborations among faculties that have a vision of what technology can do for mankind.

Similarly, in *Nepal School sector development plan 2016-2023*, a cornerstone in promoting techno-based learning environment, planned to provide ICT equipment to all the schools and train teachers with ICT knowledge and skills. Through ICT policy, the Nepalese regime aims to transform traditional teaching modes to modern teaching methods, including digital literacy (Ministry of Education, 2016). To Gupta, et al (2020), web-based teaching is an alternative educational tool that aims to include everybody if they are informed of ICT. Along with the above governmental efforts in the past to produce qualified human resources who could overcome the upcoming national and global challenges, the National Education Policy (2019) also aimed to produce competent and skilled human resources for the transformative development of Nepal (Ministry of Education, Science and Technology, 2019). Despite the policies and strategies constituted by the regime of Nepal, most schools and universities are still struggling with running web-based online classes because they lack ICT infrastructure on the one hand and ICT literate staff members on the other (Maski, 2018 & Rana, 2020). The reason could be that Nepal runs a deficit budget every year, which does not provide sufficient funding for the training and ICT infrastructures. However, with Nepal's sparse funding, some of the schools and universities have been running blended e-classes since the 2019 pandemic. Referring to this educational shift, McQueten strongly believes that it aids collaborative learning (cited in Boettcher and Conrad, 2004). Likewise, Pathak (2016) mentions that ICT has revolutionized the education setting, setting a new blueprint for the transformation of traditional universities by storing literature and research in the digital system iCloud and applying internet-based educational models.

Along with the merits of online mode and its growing demand across the world to meet the challenges of the 21st century, online mode of learning in Nepal is vulnerable. The reason is that neither teaching faculty nor the learning community is techno-friendly. However, the government of Nepal has done its best to train both of them so that quality education can be tangible and produce world-class citizens. On the other hand, a sparse budget, unreliable electricity supply, poor bandwidth, and limited internet distribution pose Herculean challenges. If such difficulties could be overcome through the consorted efforts of the public and the government, web-based learning and teaching in the cyberspace would become a boon in Nepal because

Conclusion

Nepal's education system evolved through Gurukul to e-learning, which has just come out of the list of least developed countries, however, its position in GCI is still considerably low. To outwit such problems, Nepal's attempts to impart quality education through the cloud/cyberspace is commendable, though there is still a blended mode of education. The breakthrough in science and technology has helped human beings overcome life's challenges through research. It has also helped to cater to education in a better and qualitative way. The ICT policy of the Nepal government and the recent efforts of universities to exploit e-learning have been an advantageous effort to optimize learning outcomes that ensure transformative development of the nation.

Nepal has huge possibilities to take advantage of the online mode of learning because e-learning can surpass geographical, economic, and cultural barriers, which ensures collaborative learning through the educational shift. In fact, COVID-19 has opened up an avenue to comply with e-learning pedagogy from which teachers and students have equally benefited to gain quality education that combats social backwardness. Finally, techno-friendly human resources also make them more competitive in the global job market, promoting Nepal's GCI position.

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