

# Online Education in Nepal: Prospects and Challenges

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**Abstract:** Education using the internet refers to online education through where teacher/students interact with each other, share educational materials and knowledge, and skills. Online education system is not only the guide or moderator between teachers and learners but also a huge collection of learning materials (resources) with several learning tools and applications through which learner could learn any subject themselves as their need and wish. Due to COVID-19, the relevancy of online education is grooming not only in Nepal but also in the globe. Online education reflects their prospects and challenges during the implementation phase. The aim of the study to identify the prospects and challenges of online education. Qualitative approach has applied for completion to this study. The study concludes that online education provides equal access to education for all learners, academicians, and researchers. Challenges and difficulties of online education are to solve the problem of the Digital Divide of the Country. The Government should provide Broadband Internet or 3G/4G Wireless Network and online learning devices in the rural areas. They need to have training for the operation of online applications to solve the Computer Literacy problem. This article acknowledged that regular power supply, high speed internet, learning devices and materials, skilled teaching faculty, information communication and technology infrastructure and learning applications to conduct online classes are the major problems of online education. Technical training should provide to teaching staffs by concern institution to manage the learning skills.

**Keywords:** online education, e-learning, open learning, virtual learning, digital learning

## 1. Introduction

When academics and learners synthesize information across problems and experiences, critically assess significantly different perspectives, and incorporate numerous inquiries then we can say education could develop more transformative and qualitative [1]. The Government of Nepal is successes in information communication technology (ICT) development in the nation but it's infrastructure development status and service delivery stipulation is not satisfied as ICT citizens demand [10]. The use of ICT in education has made changes within the accelerated development in learning and their delivery through online modality.

Research concerning the online education system in different countries, in brief, depicts different impressions. U.S. education system offers a range of full-time degree programs at undergraduate and graduate levels as well as individual courses through a variety of methods, including websites, mobile apps, email, telephones, and additional [2]. Within the United Kingdom several respected universities run online collegian and Postgraduate credentials courses. Such courses are delivered are affordable from the perspective of time and money [3]. Japan is taking progressive initiatives for education in business, science, and internationalization through the web sphere [4].

European Union emphasizes present days are on (a) infrastructure, connectivity, and digital accessories, (b) effective digital capacity planning and development, as well as up-to-date organizational capabilities (c) digitally competent and confident academics and education and coaching employees (d) high-quality learning content, user-friendly tools and secure platforms that respect privacy and moral standards [5]. China's online learning applications

have seen a comprehensible increase in activity as colleges, training centers, and parents collectively turn to digital platforms to combat the disruption caused by the happening [6]. The Indian New Education Policy (NEP) 2020 is intended to maximize the advantages of digital and online education in India whereas mitigating the downsides. It has emphasized virtual labs [7].

Nepal declared in its policy to creating supplementary ODL system to advantage with all the possible opportunities for the citizens belonging to various need contexts to give access to education and opportunities to obtain formal education and overall personality development especially to the disadvantaged community, women, and working people through distance mode [8]

The education system is upgrading currently with advanced technologies that are from standard learning to online education. This is often relevant for the learner because it is providing flexibility in learning with optional choices for study to the learner with unlimited access to information and different matters [9]. As time has been dynamical day by day, several technological signs of progress may be seen currently [10]. With the invention of many advanced technological media just like the laptops, internet, mobile, and so on, numerous bulks of message or information can be sent or receive currently making it easy for human communication [11]. Various sources have made the easy to receive information about things around the globe. As a result, with due technological development, people can easily access essential messages, information and can simply solve any problem within a short period of time [12].

Before the twenty first century, people had to try and do additional effort in obtaining the mandatory information. In fact, at that point they were required to know which sources provide reliable information and even if they knew the

Volume 10 Issue 6, June 2021

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sources that might not be available [9]. Now, this is often the twenty first century and now everything has modified with the advanced development of technology. Learning with technology is being essential in every educational institution to deliver learning contents in easy and smart way so that learner can achieve the knowledge and skill without hesitation. Nepal has been also practicing use of technology in learning-teaching since few years ago but not being professional till days [13].

The online education system is the process of learning with internet based technology and other online materials [14]. Internet is the main source of information and these days but it is not available everywhere as we need due to lack of ICT infrastructure development[15]. The term online education simply happens at the computer generally with the help of internet via browser with the assistance of a teacher or guide [5].

This online education made easy learning with low cost for the students and has made trainers or teachers easy for training and teaches subject matters. In this era of the twenty first century, the world has transformed with new technology and we too. With this era of technology, the learning process is no longer limited to anyone and anywhere [16].

**Statement of the Problems:** What is the problem in the country to avail the right education to all the people in the country and develop all the sectors through the development of the people?

**Objectives of the study:** Analyze the prospects and challenges of online education in Nepal

**Research Questions:** This study was designed to answer the following research question: 1) what are the prospects and challenges of an online education system in Nepal?

**Rationale and Significance of the Study:** It aims to integrate a review of the literature to provide a new system for the online education system. The studies of all these found the impact and challenges of the online education system as well as develop a new system for the online education system and strategy. It would help to analyze the prospects and challenges of the online education system in Nepal.

**Research Methodology:** Qualitative and quantitative mix approach has used for this study. 141 students have selected for sample who have been studying through online during COVID 19 pandemic at seven provinces of Nepal. The questionnaires survey has done in their schools/colleges. Expert's key interview, focal group discussion, field observation, national and international journals, reports, websites, text books have used as reference materials.

## 2. Literature Review

### 2.1 Online Education Introduction

Online education system is not only the guide or moderator between teachers and learners but also a huge collection of

learning materials (resources) with several learning tools and applications through which learner could learn any subject themselves as their need and wish.

The internet and the World Wide Web have made significant modifications to almost all aspects of our daily lives ranging from a global economy, personal, tourism, agriculture, and learning. The internet has prepared online education easy, possible, and many researchers and educators are interested in online education to enhance and improve student learning outcomes and the reduction in resources, particularly in higher education but it is being a necessity in lower secondary and primary level due to Covid-19 pandemic [17], [18], [19]. There have been increases in demand for online education from the student's side. With the growth of online education and its potential in higher education then lower classes, researchers and educators must examine the effectiveness of online education in educating students compared to traditional face-to-face learning in this modern era.

Online education is a form of distance education, which has long been a part of the education system, and it has become the largest sector of distance learning in recent years [20], [21]. Purely online courses are delivered entirely over the internet, and hybrid learning combines traditional face-to-face classes, learning over the internet, and learning supported by other technologies[22],[23]. But now, due to the development of modern ICT accessories and applications made online education chief, easy and best. Online education has lowered the discrimination of education to the learners and providing equal access to all learners around the globe.

New approaches in education have been the creation of online courses developed in the United States and worldwide at exponential speed. It is becoming increasingly common at many higher education institutions, offering fully online and hybrid courses combining online instruction with face-to-face teaching. Statistics were done by the Pew Research Center (2011) show that in the 2010-11 academic year, 89 percent of four-year colleges and universities offered courses taught fully online, or hybrid online, or other forms of distance instruction [24]. Of all students enrolled in higher education in 2013, 32 percent took at least one online course [25]

The development of online courses in higher education doesn't happen overnight. 2008 the study by the National Center for Educational Statistics (NCES) found that the main factors influencing higher-education institutions to offer online courses included meeting students' demands for flexible schedules (68%), providing access to college for students who would otherwise not have access (67%), making more courses available (46%), and seeking to increase student enrollments (45%) [26].

Distance education originated in the United States in the 1800s when teachers and learners at the University of Chicago, who were at different locations, tried to connect through correspondence programs. Years later, the development of radio as a communication medium during World War I opened the door for using that technology for

distance education in colleges and schools such as the School of the Air established in Wisconsin in the 1920s [27].

Observing the technique of both learning strategies, the online education system has no limitation of accessing information which the conventional learning limited accessing the information for the students. We observed most of the universities upgrading the educational system and applying the step-up education with online education system approach from conventional learning approach that is helping for distance learning. Hence by this, it could be declared that online education is better than distance education due to new technology, tools and education applications [3].

Today's innovative technology is more helpful for creating educational material including text, images, audio, and video that are helping educators for creating a good learning environment improving communication and interacting with students. An online education tools and applications have been using more effectively for teaching and learning processes to share knowledge and skills among students [2].

## 2.2 Current Status of Online Education in Nepal

Online education has been significantly popular in Nepal in recent days after the impact of the Covid-19 pandemic across the country. The government has asked for all the academic institutes to close the physical presence of students and teachers in the class. In this situation, only online education has been the alternative to carry on the teaching-learning activities. Teachers are teaching from their residence to the students staying at home. Different applications like Google Zoom Cloud Meeting, Google Meet, Microsoft Team, Skype etc. have been used for online teaching-learning purposes via the internet. The teachers use desktop and laptop computers for teaching purposes and students use desktop or laptop computers or smart devices for the online learning purpose in the real-time taught by the respective teacher.

## 2.3 Advantages of Online Education

Online education has provided several advantages to the learners. Its effectiveness in educating students, its use as professional development and the possibility of providing a world class education to anyone with a broadband connection from anywhere of the globe [20][30][31].

There is a hope that online education will be able to provide a world class education to anyone, anywhere, and anytime as long as they have access to the internet. Some websites and companies Khan Academy, Udacity, edX, and Course are some of the most prominent ones are built on this premise, and many well-respected scholars and entrepreneurs have high hopes and expectations for online learning, particularly for massive open online courses [32][33][34]. Central to this particular benefit, to most of the purported benefits of online learning, is the effectiveness of the online format in educating students. If online education is normally less effective than the conventional face-to-face format, then some of the abovementioned purported claims and benefits of online education are highly suspect. Online learning is

self-paced, not age bound, student centered, cost effective, individual learning style, customizable learning environment, fully utilizes analytics, techno friendly, no need of text books, time-efficient and solve teachers scarcity [35].

## 3. Result and Discussion

The analysis is based on the responses of students who are involved in online education at school, colleges and universities of Nepal in seven provinces. It is hypothesized here that if the demand side (students) are cautious towards the online education system, then the supply side adjusts itself.

Students are asked several questionnaires related to online education. Among them some views of students are maintained herewith and analyzed it.

### Availability of the instruments:

During online education system, students have been using different electronic accessories. Several educational technologies made online education choosy.

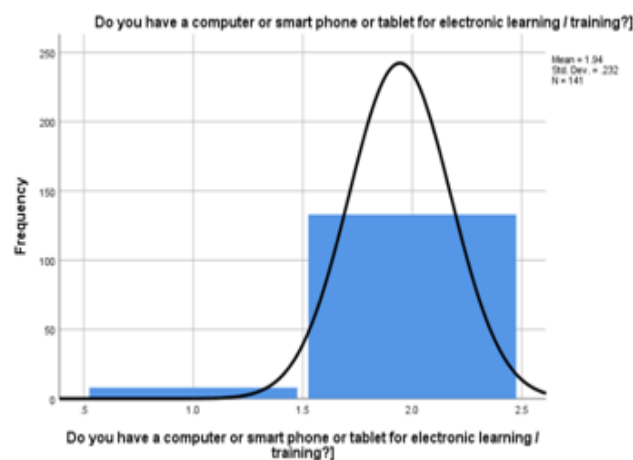
### The question is do you have a computer or smartphone or tablet for online education?

**Table 1:** Availability of computer laptops or smart phones for online education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8	5.7	5.7	5.7
	Yes	133	94.3	94.3	100.0
	Total	141	100.0	100.0	

Source: Field data 2020

The table 1, illustrated that a significant number of students, who responded from the sampled 94.3% of responded that they have instruments for online education, and 5.7% have not their learning devices. It showed that most of the students have their learning devices at their home.



Those students who have not computer, laptops and smart phone were attended the online classes sharing with friends at their home. They send assignment and attended online examination same way. It is the critical issue for poor students.

**Types of the instruments:**

As we know that modern innovation has made online education easy and cheap due to its availability and reliability. Many students have used several devices for online education but which one is better for access and play with internet.

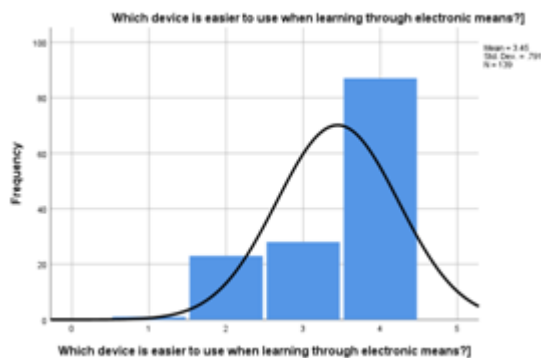
**The question is which device is easier to use when learning through online means?**

**Table 2:** Types of the instruments used in online education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Desktop	1	.7	.7	.7
	Laptop	23	16.3	16.5	17.3
	Mobile	28	19.9	20.1	37.4
	Smart phone	87	61.7	62.6	100.0
	Total	139	98.6	100.0	
Missing	System	2	1.4		
Total		141	100.0		

Source: Field data 2020

The above table 2 showed that a small percentage of the respondent from the sampled 16.3% responded they have a laptop. The number of students possessing mobile and smartphones was 81.6% of each in the sampled who responded.



Many students have laptops, computer and smart phone individually. But those students who have poor economic condition they don't have such devices to attend online classes and they must share with their friends. Poor students have such types of heartrending situation in city as well rural area of Nepal.

**Internet facility for online education/training:**

As we know technology influences the online education. Internet is the foundation as well backbone of it. It is impossible to conduct online classes without internet facility.

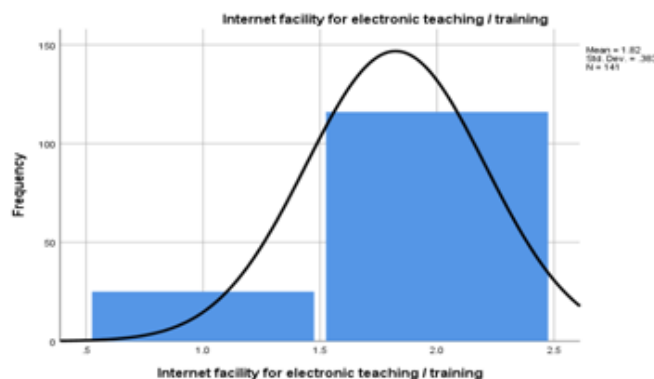
**The question is whether there is the availability of the internet for online education?**

**Table 3:** Availability of internet facility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	25	17.7	17.7	17.7
	Yes	116	82.3	82.3	100.0
	Total	141	100.0	100.0	

Source: Field data 2020

The table 3 indicated that a significant number of respondents from the sampled 82.3% responded positively. Only 17.7 % of students indicated that they have not internet for their teaching and learning.



Due to poor WIFI connectivity in rural areas students have been facing problems during online classes. Disconnection of WIFI, poor visualization and poor sound system made students irritation during class period too. It made difficult to concentrate on their classes. Those students who have not WIFI at their home have shared with friends. They must walk long distance to get WIFI at friend's home. It is the great problem of students in hilly and mountain areas.

**Learning management skills**

Learning management skill is compulsory to operate new technology and educational applications. Lack of technical skills many teachers and learners are unable to attend online classes. Gradually, they are familiar with such technology and feeling relief.

**The question is do you have learning management skill (LMS) for learning through the online medium?**

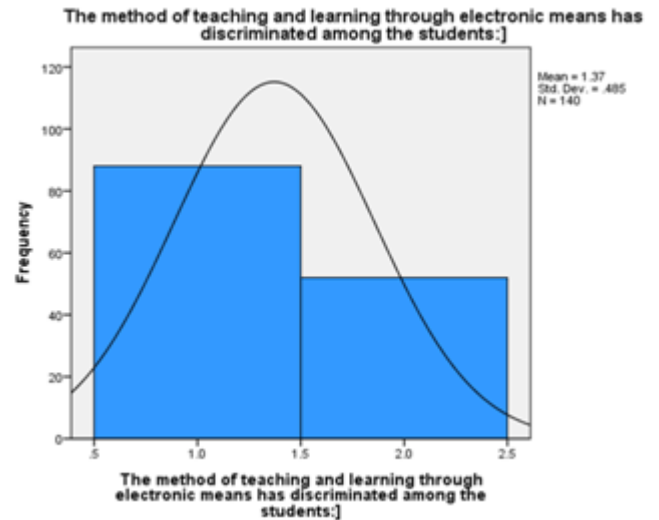
**Table 4:** Online education management skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	27	19.1	19.3	19.3
	Yes	113	80.1	80.7	100.0
	Total	140	99.3	100.0	
Missing	System	1	.7		
Total		141	100.0		

Source: Field data 2020

Table 4 focused that a significant number of respondents from the sampled 80.1 % responded they have online education management skills and 19.1% of students stated that they don't have. It showed that majority of students have the LMS to attend online classes.





Learning management skill is one of the soft and hard skills which make the teacher and students smart in their life activities. Teachers who are habitual with black board and chalk, white board and marker felt difficult and hesitation to conduct online classes. Later on they learned the technical skills, how to operate computer, application and internet. The result is that they are curious with new technology and application related to online education. Now, they are conducting online class frequently with curiosity.

**Discrimination among the students**

Still many people are under poverty line in Nepal. Numbers of students are barred to achieve education due to poverty. They could not manage school/college fee, computer, laptop, smart phone and internet. In this scenario, online education is rapidly boosting in seven provinces of Nepal during COVID 19 pandemic. The Government of Nepal has also promoted the online education at government school, colleges and universities.

The question is having the method of teaching and learning through online means discriminated among the students?

**Table 5:** Discrimination among the students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	88	62.4	62.9	62.9
	Yes	52	36.9	37.1	100.0
	Total	140	99.3	100.0	
Missing	System	1	.7		
Total		141	100.0		

Source: Field data 2020

The table 5 declared that a majority of the students (62.9%) responded "no", however, the number who says "yes" is also is large (36.9%).

Although online education is not discriminated the learners but the fact is not satisfied. Due to many reasons numbers of students are bound to get the online education basically in rural areas. They are still out of education ring.

**Appropriateness of online education:**

Many years before online education were a dream in Nepal. After the entry of internet it became possible to conduct online classes in several courses in many school, colleges and universities. Although there are many challenges, the leading universities of Nepal like Nepal Open University, Tribhuvan University, Kathmandu University, Pokhara University, Nepal Sanskrit University Mid-Western University and Far-Western University of Nepal were offering online education for bachelor degree, master degree, M Phill and PhD degree.

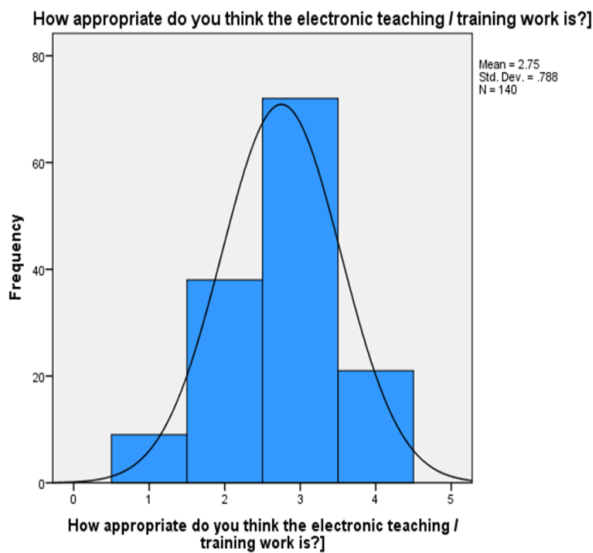
The question is how appropriate do you think the online education work is?

**Table 6:** Appropriateness of online education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely not nice	9	6.4	6.4	6.4
	not nice	38	27.0	27.1	33.6
	Nice	72	51.1	51.4	85.0
	Very nice	21	14.9	15.0	100.0
Total		140	99.3	100.0	
Missing	System	1	.7		
Total		141	100.0		

Source: Field data 2020

Above table 6 showed that the 66% respondents said positively that online education is useful for education and training where as the only 34 % respondents said it is not the right.



The latest thought of Nepalese people has changed due to COVID 19 pandemic. They keep health in first priority than education. Now, they are agreed to provide online education to their child from home. They are facilitating their child by providing them online educational materials, internet and devices too.

**Challenges of the online education system**

Online students of the globe have their own problems and challenges while attending online courses. The request made is to write down if you see the challenges of teaching / learning through online medium. All the students sampled were asked to write the challenges of online education and teaching. Almost all the students gave the challenges they have faced. Some of the major challenges are:

**Table 7: Challenges as stated by students of online education**

Issues	Problems indicated
1. Technical issues.	Computer shut down due to inferior quality and breaking WIFI system.
2. Distractions and time management.	Home requires a homely environment, there is the expectation of the family members to be with them and take part in the conversation. Family members expect time for their purpose in the house so regular class from the house is destructive.
3. Staying motivated.	Though online is easier than accessing physical class there are so many matters and methods of teaching that are best possible through the physical class.
4. Understanding course expectations.	There are expectations of the courses that are related to the high level of interaction among participates, immediate peer evaluation and feedback, developing social interaction in the social system, etc. Such can be little expected from online classes.
5. Lack of in-person interaction.	Internet power is poor, and the regular video mode is hardly possible. If not seen one another's face in the class, the class does not become the life it should be.
6. Adapting to unfamiliar technology.	The online class demands higher and advanced knowledge in technology if students wish to take full advantage of it. Due to its un-minimizes and short-term orientation, they have been able to take full advantage.
7. Uncertainty about the future.	Online classes, especially in Nepal, are the compulsion arises by the situation not by the institutional arrangements based on the research and experiences. It is temporary arrangements just to mitigate the crises.

Source: Field data 2020

The Digital Divide of the country is the main challenge for online education in Nepal. Students in rural areas do not have internet facilities at home. The internet available also does not have enough bandwidth to use for online education. Another factor is that the students living in the rural areas cannot afford computers or smart devices and internet for their education. Lack of computer literacy is another factor in the rural area for online education. Frequently free WIFI, power back up and learning management skills of teachers and students are also essentials.

**4. Discussion**

Due to the Covid-19 pandemic, online education in Nepal moving ahead forcefully. Many of the learners have their electronic devices to attend the online class as computers, laptops, and smartphones. Internet facility is available in city area but its service is not regular in rural areas. Students are satisfied with online education and getting an academic environment at home but that is not fully satisfied. Online education has not discriminated against the learners but students of rural areas are not able to join the online class due to lack of their WIFI at home. Time and content management, interaction with teachers and friends are poor.

Face-to-face interaction with friends helps to share ideas, skills, behavior, and attitude. Anyway online education is adopting by Nepalese citizens very easily present days. But it is not reached at poor people's door to door. It is the great challenge to the Government of Nepal.

**5. Conclusion**

The major way out of resolving the Challenges and difficulties of online education is to solve the problem of the digital divide of the country. Students need a computer or smart device connected to the internet for online education. The internet needs to have enough Bandwidth for online education. Students need broadband internet or 3G/4G wireless network for online education. Computer literacy is another important thing for online education. So, the Government should provide broadband internet or 3G/4G wireless network in the rural areas. To solve the computer literacy problem, they need to have training for the operation of online applications. Digital divide, regular power supply, high speed internet, learning devices and materials, skilled teaching faculty, information communication and technology infrastructure and learning applications to online class are the major problems of online education. Technical

training should provide to teaching staffs by concern institution to manage the learning teaching skills.

## 6. Future Scope

The major ways out of resolving the challenges and difficulties of online education are to solve the problem of the digital divide of the country. Students need a computer or smart device connected to the internet for online education. The internet needs to have enough bandwidth for online education. Students need broadband internet or 3G/4G wireless network for online education. Computer literacy is another important thing for online education. So, the Government should provide broadband internet or 3G/4G wireless network in the rural areas. To solve the computer literacy problem, they need to have training for the operation of online applications. The scope of online education is bright in future.

## References

- [1] Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research*, 15, 157-190. Retrieved from <http://www.informingscience.org/Publications/3502>
- [2] <https://educationusa.state.gov/online-learning>
- [3] <https://www.distancelearningportal.com/articles/294/10-top-uk-universities-ideal-for-distance-learning.html>
- [4] <https://www.japantimes.co.jp/community/2017/05/14/issues/liberating-young-minds-technology/>
- [5] [https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan\\_en](https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en)
- [6] <https://www.china-briefing.com/news/growth-chinas-online-education-industry-spurs-new-regulations/>
- [7] <https://www.collegedekho.com/articles/benefits-and-challenges-online-education-in-india/>
- [8] Yanuschik O, Pakhomova E and Batbold K (2015), E-learning as a way to improve the quality of education for international students. *International Conference for International Education and Cross-cultural Communication. Problems and Solutions (IECC-2015)*, 09-11 June 2015, Tomsk Polytechnic University, 30: 147-155.
- [9] SubarnaShakya, Gajendra Sharma, Kamal B. Thapa (2017). State Education System with e-learning in Nepal: Impact and Challenges. *Journal of the Institute of Engineering*. Lalitpur, Nepal PP 10-19.
- [10] GiriShailendra(2020). Dimensions of Digital Nepal Framework and Appropriate Roadmap. *International Journal of Science and Research (IJSR)*. Volume 9, Issue 1. Paper ID: 31121901 DOI: 10.21275/31121901 Available at: [www.ijsr.net](http://www.ijsr.net)
- [11] Xiberta P and Boada I (2016), A new E-learning platform for Radiology Education (RadEd) Computer Methods and Programs in Biomedicine, S0169-2607(15)30089-4 DOI: <http://doi.org/10.1016/j.cmpb.2015.12.022>
- [12] Boettcher, J. V., & Conrad, R.-M. (2010). The online teaching survival guide: Simple and practical pedagogical tips. John Wiley & Sons.
- [13] GiriShailendra( 2019 ). Overview of Technology-Based Training: A Case of Nepalese Public Training. *International Journal of Innovative Science and Research Technology*. Volume 4, Issue 12. Pp 1191-1196. Available at: [www.ijisrt.com](http://www.ijisrt.com)
- [14] De la Varre, C., Keane, J., & Irvin, M. J. (2011). Enhancing Online Distance Education in Small Rural US Schools: A Hybrid, Learner-Centred Model. *Journal of Asynchronous Learning Networks*, 15(4), 35–46.
- [15] Clark, R. E. (1994). Media will never influence learning. *Educational Technology Research and Development*, 42(2), 21–29. doi:10.1007/BF02299088
- [16] Bowen, W. G. (2013). *Higher education in the digital age*. Princeton University Press
- [17] Farinella, J. A., Hobbs, B. K., & Weeks, H. S. (2000). Distance delivery: The faculty perspective. *Financial Practice and Education*, 10, 184–194.
- [18] Kim, K., & Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says. *Educause Quarterly*, 29(4), 22
- [19] Pape, L. (2010). Blended Teaching & Learning. *School Administrator*, 67(4), 16–21.
- [20] Bartley, S. J., & Golek, J. H. (2004). Evaluating the Cost Effectiveness of Online and Face-to-Face Instruction. *Educational Technology & Society*, 7(4), 167–175.
- [21] Evans, J. & Haase, I. (2001). Online business education in the twenty-first century: an analysis of potential target markets. *Internet Research*, 11(3), 246–260. <http://doi.org/10.1108/10662240110396432>
- [22] Hoic-Bozic, N., Mornar, V., & Boticki, I. (2009). A Blended Learning Approach to Course Design and Implementation. *IEEE Transactions on Education*, 52(1), 19–30. doi:10.1109/TE.2007.914945
- [23] Osguthorpe, R. T., & Graham, C. R. (2003). Blended Learning Environments: Definitions and Directions. *Quarterly Review of Distance Education*, 4(3), 227–33.
- [24] Moore, M., & Kearsley, G. (2012). *Distance education: A systems view of online education* (3rd ed.). Belmont, CA: Wadsworth.
- [25] Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracing online education in the United States*. San Francisco, CA: Babson Survey Research Group and Quahog Research Group LLC.
- [26] Parsad, B., Lewis, L., & Tice, P. (2008). *Distance education at degree-granting postsecondary institutions: 2006-07*. Washington D.C.: National Center for Education Statistics Institute of Education Sciences.
- [27] McIsaac, M. S., & Gunawardena, C. N. (1996). Distance education. In D. H. Jonassen (Ed.), *Handbook of research for educational communication and technology: A project of the Association for Educational Communication and Technology* (pp.403-437). New York: Simon & Schuster Macmillan.
- [28] Harasim, L. (2000). Shift happens Online education as a new paradigm in learning. *Internet and Higher Education*, 3, 41-61.
- [29] De la Varre, C., Keane, J., & Irvin, M. J. (2011). Enhancing Online Distance Education in Small Rural US Schools: A Hybrid, Learner-Centred Model. *Journal of Asynchronous Learning Networks*, 15(4), 35–46

- [30] Gratton-Lavoie, C., & Stanley, D. (2009). Teaching and learning principles of Microeconomics online: An empirical assessment. *The Journal of Economic Education*, 40(1), 3–25.
- [31] Bowen, W. G. (2013). *Higher education in the digital age*. Princeton University Press.
- [32] Fisher, D. (2012, November 6). Warming Up to MOOC's. *The Chronicle of Higher Education Blogs: ProfHacker*.
- [33] Lewin, T. (2012, July 18). AnantAgarwal Discusses Free Online Courses Offered by a Harvard/M.I.T. Partnership. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/07/20/education/edlife/anant-agarwal-discusses-free-onlinecourses-offered-by-a-harvard-mit-partnership.html>
- [34] <https://e-student.org/advantages-of-e-learning/> Retrived on 1<sup>st</sup> January 2021
- [35] Wallace, R. (2003). Online education in higher education: A review of research on interactions among teachers and students. *Education, Communication & Information*, 3(2), 241-280.
- [36] Konetes, G. D. (2011). Distance education's impact during economic hardship: How distance learning impacts educational institutions and businesses in times of economic hardship. *International Journal of Instructional Media*, 38, 7–15.

## Author Profile



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