

E-Learning with Digital Media and Human Development: The Way Forward for Pakistan

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Abstract

The education system of any nation plays a great role in national construction. The enlightenment of education is one of the necessary sectors to witness the revolutionary changes in recent times with the evolution of digital media technologies. The present research is aimed to recognize and highlights the significance of e-learning in the national construction and human development of Pakistan. The current research attempt scrutinizes the conceptual pattern of digital learning, fundamental aspects of national construction, the usefulness of such learning in the region of South Asia generally and Pakistan specifically. The education role in human resource along with the disciplinary elements of the national building is also aimed to be interpreted. Afterward appreciating the importance of human resource development, the essentials of e-learning have been explained in detail. The study also focused that how e-learning with digital media technology can be employed to minimize the digital divide to succeed in national advancement and digital educational development. The study also submits various suggestions and practical steps on the implementation of the electronic learning techniques in Pakistan and the results are beneficial at the national level for effective usage of e-learning methods with digital media technologies in human resource expansion drivers. If it is planned properly with the availability of digital media then the appropriate outcomes will be affecting definitely human development in Pakistan.

Keywords: E-learning, Human Resource Development, Digital Media, Technology, Pakistan

Introduction

The essence of the successful achievement of a certain nation is founded in their conception and improvement in the sector of education. The development in the education field may decrease the rate of illiteracy and unemployment that both issues are supposed the very basic ills of nations (Ahmad, Arshad & Ahmad, 1991). In

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Pakistan, the educational field is directed by the governmental ministry at the provincial level while further addition and development in curriculum and financial matters are dealt with under the supervision of the federal government functionally. There are about 180.1 million citizens (United Nations Development Program, 2011). Geographically, it has border sharing in the east with India, in the south with the Arabian Sea, in the southwest with Iran, in the northwest with Afghanistan and, northeast with China. It is analyzed that Pakistan is one of the most global fastest-growing countries in concern to population and ranked as the 6th most populous in the globe (Malik, 2011).

E-learning is an electronically approach of learning and education process with the help of digital media devices like laptops, computers, tabs and android cell phones. It is either a course from the schools, colleges, training or part-time digital learning study is the mode of electronic technologies to reach outside the classrooms. In the various aspects, it is thought of as a course, program or entirely an online degree. Such learning is very precious to build the fundamental development of each country. In contemporary modernized age, everyone is in the support of the described way of learning. It actually paves the field to reach the foreign quality way of learning experiences. It is possible when a local way of education is not providing such quality of study because of finance or other issues (Shah & Attiq, 2016). Pakistan is now bouncing continuously as despite a couple of problems at the moment of its formation, has now solved related issues of that time. In spite of significant improvements, she could not develop as it was dreamt by its founder to grow quickly. Nowadays, when human resources are thought the key to success, the world is concerning their youngsters to be equipped with various skills, but Pakistan has not got significant developments in this regard. The lack of capability to innovate the youngsters' potential is the fundamental hurdle in the national improvement, and it caused the formation of various societal lusts that turned their minds to be the facilitator of terrorism. With the characteristic aspects of the economic situation, flexibility, ease to reach, easiness in usage, functionality, interaction and adaptation, digital learning is the basic solution for the major deteriorations of Pakistan (Pituch & Lee, 2006). From the odd human growth and majorly the education is not as a significant boost in the upcoming time period, the trend of e-learning in the whole nation might have a connective result to shorten the digital gap and could be proved as a treasure for Pakistan. This study, therefore, presents a review of e-learning related literature in this essay to under a holistic picture of digital technologies use and e-learning techniques in Pakistan. This study utilizes literature review approach to present the summary of association between digital media, e-learning, and human development in Pakistan.

Digital Media and Human Development

Digital media technologies with specific reference to the internet play a great role in national growth and human development as well. The national growth and

human development comprise the innovative ideas and modern technology at enlightening the lives of the people. The national development is a social order where the people yearn to be fulfilled via sustainable and legitimate consumption of various resources and the mechanisms. The consumption of such naturally available resources relies on the digital mode of technology through which the cultural characteristics of the population are under the frame of the specific state. Whatsoever the surroundings and the cultural environment of the people in which the digital media work, convinced elements are the basics in the way they stimulus national growth and human development too (Toor, 2005). In the context of traditional media, Kamboh and Yousaf (2019) found that Pakistani press did not allocate precious space to prioritize human development issues for voiceless factions' hardships. Rather, the press is dominated by the content regarding national political issues and conflict with the neighboring countries.

National Construction and Human Development

The significant improvements in intercontinental commerce, production, infrastructure, finance, and production via education and technology are the basic and major components of national development. The distribution of fundamental convenience and social services can explicitly be thought of as the basic elements for the construction of nations (Iacono, 1999). A deep inquisitive reveals education as a basic constructive element from the time when the society members equipped with technical skills that are a necessity for national improvement and keenly essential for personal construction. Through various educational elements and technology provide national development too as it jointly with education may enhance the production rate and surge economic development. Empowered politics is considered as another element (Dervis, 2009).

Development and Pakistan

Beyond the strategy of 5 years, the state of Pakistan has formed a concerted strategy of 2025 for producing Pakistan a developed nation (ISSRA, 2016). These are the regrettable facts & figures that lie the huge statements of government with 574.1 billion dollars' GDP and in reality, Pakistan has declined to 133 from 124th previous position from the competitive ranking of 148 countries. The explicit decline reveals an institutional deficiency in economics for creating an innovative gap. The GDP as per capita income, Pakistan is ranked to 177th place globally while 120th for national saving. Out of 125 countries, it is ranked 67 in the list of basic infrastructures (Schwab, et al, 2006). The mentioned figures express the bleak image of Pakistani development and, such limited conceptions must be redesigned to make Pakistan growing up in the global index of developments.

Education and Human Resource Management

The indicators of national as well international human resource management mention the populace of the state and perform like a precious improvement tool. In developing states like Pakistan, the contemporary qualities of human resources and its developmental tactics are extremely inadequate. Consequently, the majority of these states are entangled in the bitter hold of villains of the perpetuation of less skilled and less developed. Pakistan is seen as unfortunate to achieve such developmental goals (Education reaches to minimum of 4% of total GDP and health reaches to minimum of 2% of the GDP) (Rizvi, et al., 2015) it is clearly assessed through the allocated budget as the consumptions used for the education sector, healthcare and for social welfare sides, there are a fewest allocations that made unhealthy situation of HRM. Shortly, the committed plan of a high-value HRD is treated inadequately. The current unequal adjustment Human Development Index clearly reveals the trivial efficiency of Pakistan in this sector (108/144) (UNDP, 2016). Our focused strategy is the growth based none of providing significance to education, healthcare, nutrition and migrations. That's why it is suggested to narrate such aspects.

Education in Pakistan

Both education and development are nearly linked with each other (Memon, 2007). As confirming education, a fundamental provision which the constitution of the Islamic republic of Pakistan introduces as the task of developing the educational infrastructure in the country (Khalid & Khan, 2006). As various emerging states including Pakistan's expenditures consumed for technical training and higher education is relevantly low as other segments of the budget (Green, 2008). The developmental indicators correlate the poor progress in the educational sector in Pakistan as the country's population exceeding 184 million however the 64% live in remote regions. There is a lack of resources and infrastructural developments in the education sector (Malik, et al., 2015). According to the Human Development Index (HDI), Pakistan is ranked at a position which is not satisfactory at nay coat in any sense in the international community. Performance of Pakistan in the context equates to Bangladesh, both the countries are ranked at the lowest place. In regret, Pakistan never was able to meet its targets of Millennium Development Goal with further standards containing healthcare, education and the other related essentials of competitiveness (Malik, et al., 2015). The performance in the teaching and education owing to infrastructural lacks along with less contribution in advanced education has placed Pakistan in the UNESCO's table at the rank of 113th out of 120 nations. There are 4 contributing other factors in the same order; lack of resources, unawareness, gender discriminations and misguidance of government have been noted as the reasons for low learning level (Naeem, 2013).

Education Structure

The three levels of Pakistani educational setup contain the elementarily specific level of schooling, the secondary level of education and the third one is the Higher Education. In 2010, 34.84 million institutes of education were enrolled containing 1.397 million for the teaching staff. Religious madaris contains 4.95% among whole institutes of education, 1.2% of vocational institutes, 10% of High Schools, 16% of middle schools and 50% of primary schools (Iqbal, 2010). As of Pakistani Educational Statistic Report (2015), the educational system of Pakistan has 260,200 institutes, delivering 42,918,801 numbers of students via 1,598,334 official teachers. The education imparts via 81,544 privately owned and 179,024 publicly established institutes. The literacy ratio from males to females is seen at 57:43% from 56% whole literacy rate (Malik, et al., 2015).

Pakistan's Human Development Index (Hdi) Value and Rank

Pakistani HDI values of 2017 are seen 0.562 which is a category of medium-range of human development, ranks to 150 among 189 states and territorial regions. In the central period of 1990 to 2017, her HDI values surged from the value of 0.404 to 0.562 with the enhancement of 39.0%. The following Table A Expresses Pakistani development in every HDI indicator. From 1990 to 2017, the life expectancy of Pakistani birth rate grew from 6.5 years, the schooling mean year surged from 2.9 years and the concerned time period of schooling grew from four years. The GNI of Pakistan per capita enhanced from approximately 66.2% in the described time period.

Table 1
Pakistan's HDI trends based on consistent time series data and new goalposts

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP\$)	HDI value
1990	60.1	4.6	2.3	3,195	0.404
1995	61.4	5.0	2.8	3,387	0.428
2000	62.7	5.4	3.3	3,451	0.450
2005	63.8	6.5	4.5	4,101	0.500
2010	65.1	7.5	4.7	4,447	0.526
2015	66.3	8.2	5.1	4,978	0.551
2016	66.5	8.6	5.2	5,155	0.560
2017	66.6	8.6	5.2	5,311	0.562

Source: UNDP, 2018

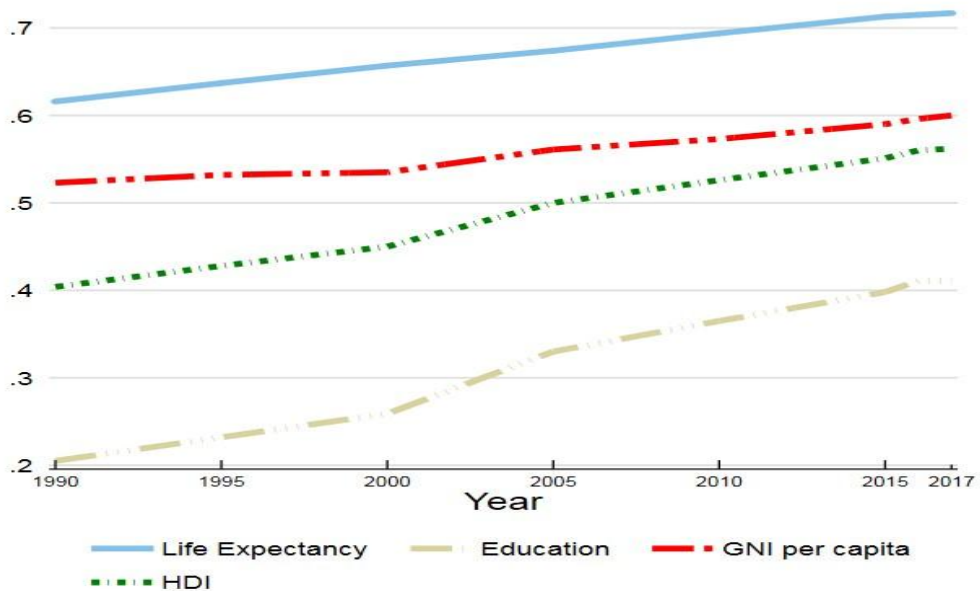


Figure 1. Trends in Pakistan's HDI component indices 1990-2017

Source: UNDP, 2018

Evaluating the development process relative to other countries, the efficiency of human development estimated by HDI may be matched to other states. Instantly in Pakistan from 1990 to 2017, India and Bangladesh are estimated to different values of development for improving their HDI values.

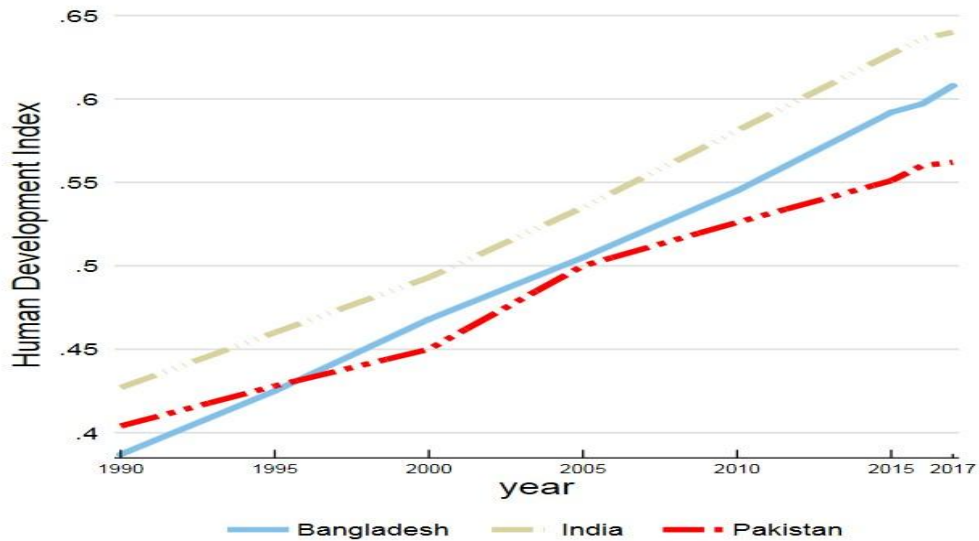


Figure 2. HDI trends for Pakistan, Bangladesh and India, 1990-2017

Source: UNDP, 2018

Pakistani HDI of 0.562 in 2017 is below the average of 0.645 for states in the medium developmental group and below the average of 0.645 for South Asian states. In South Asian countries that are a bit closer to Pakistani HDI rank in 2017 and demographically, India and Bangladesh are too close in the list of those nations which have HDI ranked 130 and 136 respectively for both of these countries (see table B).

Table 2

Pakistan's HDI and component indicators for 2017 relative to selected countries and groups

	HDI value	HDI rank	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (PPP US\$)
Pakistan	0.562	150	66.6	8.6	5.2	5,311
Bangladesh	0.608	136	72.8	11.4	5.8	3,677
India	0.640	130	68.8	12.3	6.4	6,353
South Asia	0.638	—	69.3	11.9	6.4	6,473
Medium HDI	0.645	—	69.1	12.0	6.7	6,849

Source: UNDP, 2018

Higher Education in Pakistan

The establishment of the Higher Education Commission of Pakistan in 2002, it also supervises the universities and higher education in the country. Among the whole 163 Pakistani universities, 57% have belonged to the Public sector while the other 43% are privately established (Malik, et al., 2015).

Media Globalization and E-Learning

Because of media globalization, the world has become a global village today. Currently, education can be functioned as promoting environmental awareness, tranquility, social diversity, increasing the competition and the phenomenon of the global village. In the contemporary era, education is consumed like a source of making world-wide natives. To work in this competitive globe, individuals must have lots of competitive skills for better survival that is possible with education significantly. The multiple improvements can be confirmed if the educational system is enhanced and much improved. Significantly, digital learning is one of the best ways to achieve such targets. The medium of digital learning is the extraordinary source of booming the education system in the country. When any educational institute takes a step to deliver a standard piece of education, it ought to establish on the basis of values and proper ethics and, it must be full of innovation while training particular majors. E-learning with digital media is not merely the alone aspect but it is multi-dimensional dealing with various levels of approach and techniques.

E-Learning – A Conceptual Framework

E-learning with digital media is supposed as worldwide trend because of various social, economic and technological efforts and the needs of students too. Knowledge and information as a bastion for social betterment and prosperous future, leadership and trades are struggling to enhance their space for learning and confirming standard and improved knowledge-based economies. The significant increase in e-technology and its consequences in online developments have provided chances for students to be trained better in the local classrooms at their homes globally (Sawahel, 2013). As a result, digital learning has got wealth in whole prominent institutes globally, it is as MIT has adopted such a piece of education mode (Downes, 2005). The beginning of word digital learning is doubtful, it appeared in 1980, although, by & large Jay Cross has the credit of this word (Cross, 2004). The evaluation of 4 different viewpoints as technological drive, communicated-based delivery process and educational-pattern-based, introduced digital learning as “an attempt for educating and being educated, presenting the whole or segment of applied educational system that’s rooted in the consumption of electronic media and such devices like useful function to improve the reach for learning, communicating, interacting and giving facility to adopt the modern trends of knowing and improving the learning process” (Harrison, 1996). Digital learning contains the lessons that are stored and become part of transmission via

the internet and its servers that deal with the relevant content to digital learning purposes. The concerned material is provided via media tools as photos etc. for learning the purpose, different ways are adopted as practicing, illustrations and replies (McTighe, 2005). It functions as instruction in the actual moment, known as Synchronous digital learning or structured for suiting someone's needs for personal learning knowing as Asynchronous digital learning (Thorne, 2003).

The Benefits of Digital Education and E-learning

The recent overlook at the efficiency of e-learning is essential from the influence of the credit crunch (Beldhuis, 2012). Digital education is evaluated by a flexible impact of personal knowledge, free to select the study time and feasible location without moving one to another place (Salmon, 2013). The multiple usefulness of digital learning contains cost efficiency i.e. minimized price and to learn compress in the angle of decreased working out moment (Moule, et al., 2008). Digital education gives a quicker distribution function times in contrast to the traditional kind of classrooms; digital learning is not limited to any fixed digit. As an illustration, British Telecom gave training its 23,000 workers merely in 3 months, with consuming merely £5.9m. The price of teaching in the case of the traditional way of learning would have been soared to £17.8 with 5-years of needed time. Digital Learning provides a useful way of learning by delivering universal reach to the learning platform that may now be reached even via modern means of deliveries as cell phones (Woodill, 2007). Students as well as teachers are tangled in digital learning and get almost similar kind of satisfaction and achievements as may be gained in any other way of teaching (Cole, 2014). The constructive communication between a teacher and a student as well student to student are key to establish with the advanced degree of gratification (Cole, Shelley, 2014).

Limitations of E-learning

Digital learning scheme is majorly technological reliant on i.e. the students would be needed to reach via computer-based instruments, need of few specifications as directed by digital learning availability. Digital learning has to face Materialistic Incompatibilities various times (Ramayah, 2012). Such kinds of pieces of the training of training may be proved as a supplement by digital learning and cannot properly be feasible via digital learning opportunities. The starting price of such learning services may cost prohibitive, while the production price of online training content is relatively luxurious too (Cole, 2014). The electrical means of communication is much linear as face-to-face conversation as it remains a suspect problem. The toughness in the accessibility for the web at out of the way and periphery territories and load-shedding is the fundamental hurdle to implement the effective digital learning atmosphere in Pakistan. The Expensive equipment is used in digital learning confirms it a handicap

too, depriving many more students to be benefitted from the platforms delivered by such a piece of learning in Pakistan.

E-learning in Higher Education in Pakistan

The ICT in the Educational Masterpiece of strategy 2007” defines the strategies to use ICT to improve students’ learning, widening educational possibilities, and developing capacities at all stages (HEC, 2015). Digital learning or E-learning may be interpreted as learning that’s received with online way, through web, a distance-based Education system, computerized digital learning, internet learning and some other kinds as well. So, digital learning can be illustrated as the courses delivered via the web connection to somewhere rather than the classrooms where the teacher teaches. It’s interactive-based learning wherein a learner may communicate with teachers, lecturers or other learners in the class. Momentarily, it’s transmitted live; wherein anyone may electronically raise hands and generate interaction really and in some cases, it’s a lecture that is prerecorded too. Routine wise, there’s a teacher or professor who communicates with learners and grades the expected participation, organizes the assignments and various tests. Digital learning is proved to be a successful way to train and educate. It’s becoming the trend of many users in our nation e.g. agricultural education, adulthood education, pre and primary education in higher education.

Challenges Faced by E-Learning in Pakistan

Over the previous fifty years, the Pakistani government has delivered complete planning assistance and substantial public funds and support for creating one of the most world’s largest systems of higher education. Such institutes with the exception of few notable ones have not been able to consistently maintain the extraordinary education or to keep maintaining pace with developments especially, in the knowledge and technological advancements. Over time, financial restrictions of greatest enrolments and, extremely high demanded both primary and secondary education has deteriorated the governmental financial support. Prominently, overall structural myriad control along with the rigid bureaucracy has suffocated its development. The major rural population and giving them awareness about the concept of digital learning is a great challenge. The infrastructural deficiency in the sense of connectivity, web availability, etc. is another problem. The government is struggling to improve the communicational system and new technologies as 4G in the telecom space that’s already initiated to be implemented for betterment. The social implementation of digital learning is another part of the study that’s extremely important to understand for successful Pakistani digital learning. Such described implementation can be categorized into the following types of problems: cultural, lifestyle, gender, geographical, disabilities, religious/spiritual, literacy, and digital division. In the cultural problems, the categorical elements are material, multimedia, writing styles and structures, Web designing and the participant roles. Some of the material, though crucial for the course,

and either be unaccepted or unfavorable with specific class members. If the faculties are known the sensitive ingredients of the discourse or covered content, how can they lead the class to include or not to include the contents? Even the writing styles may influence the holding process of online courses.

Role of E-Learning in Human Development

In a developing state, there is a huge look at educational infrastructure; the pre-requisite for human resource development is not the economically viable choice. The country-wide expanded consumption of digital learning would result in the deeper rural penetration and remote locations too, thus realizing the requirement to lay the price prohibitive educational infrastructure and to accelerate the national development in a limited possible time zone with the fewest price. The achieved Pakistani stride of technology in the shape of ICT and digital communicational infrastructure, the density of telecommunication, mobile coverage and reach to the web can be consumed for greater benefits to enhance HDI and easy reach to education with fewest infrastructural requirements. The enhanced production consequences to digital learning would give an extraordinary increase in developing the nation.

Conclusion

After the study, we may say that overall development in Pakistan is difficult if not impossible without an educated, technical and fully trained human resource. Through human resource development, the nation can be having more educated and skilled resources as well as in this way nation can develop their motherland in the true sense globally. The current study has concluded that the rapid growth in web connections is an important tool for the better functioning of digital media and e-learning as well. In addition, a strong internet system and digital media technology with a multitude the local and international companies to assist the e-learning with make further betterment in human life. In the underdeveloped and developing states, digital media and e-learning increase the educational levels, literacy and economic improvement. If the agriculture, education and health sectors in the developing world are driven by digital media and e-learning, the emergent rate would defiantly be grown. Digital media and e-learning both can be improved by proper investigation and active strategies. In this regard, in developing states like Pakistan, such an educational concept is new and one element that can differentiate to generate a good market response. It not only true for parts such as government and education, while for the corporate field too. The previous decade was the time of rapid alteration and digital media and e-learning during which the traditional learning ways have gone through dramatic changes. With the rapid development of digital media technology, it is hoped that we have not topped and the upcoming time is ready to bring innovations that may hardly be expected. The android cell phones, laptops, tabs and computers are opening new paths for education and learning experiences. Thus, the digital scientists and education experts view that

there is needed to have a mindset to adopt e-learning. The remote areas and rural territories with none of the university education may gain the institution of higher education through digital media technology and the solution is much cheaper than constructing building infrastructure for academia. In the developing world and states like Pakistan, e-learning with digital media may boost the educational standard, literacy rate and economical construction. Likewise, it is also better for those countries where technical education is costly; options are limited and economic disparities are existed. In the e-learning process, the lack of connection with other classmates and with the institutional impact may be the key to the success of the online students. National development in Pakistan and human growth is still unfledged but it will continue to achieve the courageous step of adopting digital media technology and e-learning system in order to match its communicational requirements and may hold educational opportunities.

Suggestions and Recommendations

Yet having acknowledged the significance of e-learning in the human development, the time is now set to submit definite endorsements for implementation of e-learning modules. It is bitterly suggested the government must formulate the national digital learning plans that ought to be inseparably inter-linked to the Pakistani education strategy. The e-education strategy must be manifested in Pakistan's future vision. Not only focusing on the unattainable growth in the budget division for education, but also be shifted to spread education through e-learning and digital media. The information communication technology revolution in the developed and developing world the more widening in the web access ought to be underscored while spreading of e-learning countrywide. Collaborative measures with foreign institutions of higher education have already applied e-learning. Higher education commission of Pakistan must endeavor for collaborating with such universities and form a standard piece of learning availability at students' homes. It must be made essential for the whole tertiary educational institutes to drive conventional face to face education along with e-learning that would provide a cheaper alternative for the middle class and could stop radical elements of society. The universities, as well as technology collages, should have to adopt the learning management system (LMS) to facilitate the students. The massive growth of technical education in Pakistan by resorting to e-learning with digital media may develop Pakistan eminently.

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