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ICT in Higher Education-NEP 2020

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Abstract
The era of 21st century is often regarded as the era of technology**.** Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. ICT has become an integral part of today's teaching learning process. Effective use of technology can motivate students, make our classes more dynamic and interesting and renew teacher enthusiasm as they learn new skills and techniques. One of the most important policies of the 21st century is New Education Poliy (NEP). The policy is revolutionary and far-reaching in every aspect and its focus is on various facets of education including the integration of ICT. In the 21st century, the requirement of usage of ICT in the field of education was speedily growing. The present paper endeavors to focus on the Role of NEP 2020 in imparting Technology in Higher Education.

Keywords:-Information and Communication Technology, Online education,, Higher Education, National Education Policy 2020

Introduction

The emergence of ICT has fundamentally changed the practices of not only business and governance but education as well. While the world is moving rapidly towards digital media, the role of ICT in education has become increasingly important. There has been an unprecedented growth in the use of ICTs in teaching, research and extension activities. The sudden boom in Information Technology has transformed the way how knowledge is disseminated today. One of the changes it has brought about is the way how teachers interact and communicate with the students and vice-versa. Given the fact that higher education in India is plagued by the challenges of inadequate technology access and inequity coupled with economic considerations and technological know-how, it remains to be seen how Information and Communication Technology can actually burgeon the students and how it can foster change in this aspect.

The emancipatory and transformative potentials of ICT in higher education in India has helped increase the country's requirement of higher education through part-time and distance-learning schemes. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers (McGorry, 2002). Mooij (2007) states that differentiated ICT based education can be expected to provide greater reliability, validity, and efficiency of data collection and greater ease of analysis, evaluation, and interpretation at any educational level. While the world is moving rapidly towards digital media, the role of ICT in education has become increasingly important. It has transformed the way how knowledge is disseminated today in terms of how teachers interact and communicate with

the students and vice-versa. Besides, it can provide networking structures transcending borders and foster empowerment amongst students.

UNESCO highlights how the application of ICT could benefit the students, employers and the government. While technology can bring about a learner centered approach, it could also be harnessed for multiple purposes such as increasing the capacity and cost effectiveness of education and training systems and enhance the quality of higher education.

Table 1: Benefits of ICT in Education

Student	Increased access Flexibility of content delivery Combination of work and education Learner-centered approach Higher quality of education and new ways of interaction
Employer	High quality, cost effective professional development in work place Upgrading of employee skills, increased productivity Developing of a new learning culture Sharing of costs and training time with the employees Increased portability of training
Government	Increase the capacity and cost effectiveness of education and training systems To reach target groups with limited access to conventional education and training To support and enhance the quality and relevance of existing educational structures To ensure the connection of educational institutions and curricula to the emerging networks and information resources To promote innovation and opportunities for lifelong learning

(Source UNESCO, 2002)

Higher Education Scenario in India

India has one of the largest higher education systems in the world consisting of over 1027 universities according to UGC as on 4th March, 2022. • Total enrolment in higher education has been estimated to be 38.5 million with 19.6 million boys and 18.9 million female. Female constitute 49% of the total enrolment. Gross Enrolment Ratio (GER) in Higher education in India is 27.1, which is calculated for 18-23 years of age group. GER for male population is 26.9 and for female, it is 27.3. For Scheduled Castes, it is 23.4 and for Scheduled Tribes, it is 18.0 as compared to the national GER of 27.1.(MHRD Annual Report 2019-20).

Table 2: Classification of Universities in India

Sl.No.	Type of Institution	No.of . Institutions (As on 2006)	No.of . Institutions (As on 2022)
1	Central Universities	20	54
2	State Universities	217	444
3	Private Institutions	8	403
4	Institutions Deemed to be Universities	104	126
	Total	349	1027

(Source UGC)

The higher education system in India continues to suffer due to inadequate access to technology and inequity. However, the application of ICT in higher education has not only brought about diversification in higher education but has also fostered new avenues for international mobility of traditional and non-traditional students (Kirsebom, 1998). While it is believed that ICT can transform the educational scenario in the country, it should address the needs and perform multiple roles in higher education to benefit all stakeholders. This sense of urgency and the continuous implementation of ICT in higher education have led many universities and colleges into a more action-oriented adaptation approach (Schmidtlein & Taylor 2000). Pedro (2001) observes that the focus is often more on the end product than on the premises and processes behind a well-functioning incorporation of ICT in teaching and learning.

National Education Policy-2020

The present world is trying to come out from the severe effect of the pandemic of Novel Corona virus Disease (COVID-19). The outbreak of this novel disease across the world has brought changes in all walks of life. In the education system, it led to a complete paradigm shift from physical to virtual classroom. One of the most important policies of the 21st century is New Education Poliy (NEP) that was drafted (revised) in 2019 and approved by Union Cabinet of India on 29 July 2020.

The policy is revolutionary and far-reaching in every aspect and its focus is on various facets of education including the integration of ICT. In the 21st century, the requirement of usage of ICT in the field of education was speedily growing. The policy discerns the necessity and significance of information and communications technology in aiding teachers bridging the language barrier especially in a multilingual country like India, creating digital libraries and facilitating a technology-based platform for teacher raining. The policy also concedes the significance of technology to promote interdisciplinary research and innovation and to improve teaching and enhance learning, assessment, planning and administration of education. The policy also focuses on creating the Academic Bank of Credit and utilizing technology to ensure the effectiveness and transparency of regulatory bodies. The policy admits the challenges arising from Artificial Intelligence and calls for investment in digital infrastructure and virtual platform. Other education commissions have also highlighted the needs and significance of ICT in Education as National Policy on ICT in School Education-2012. The policy is a prototypical tool towards building digital India.

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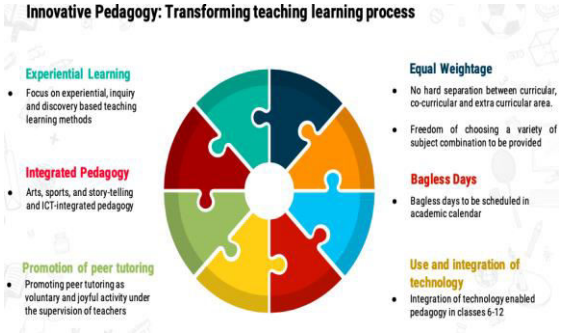
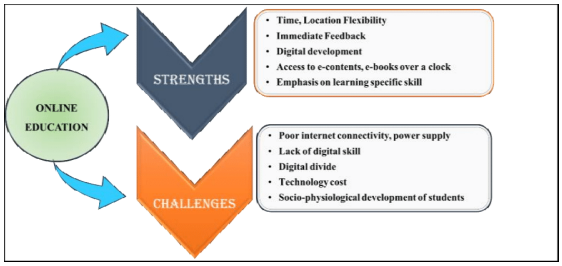


Challenges of ICT

- ICT Supported Infrastructure and Lack of Resources
- Digital competencies of teachers to meet further need
- Unavailability of open and public digital resources
- Online assessment scales
- Bridging digital divide
- Limitations of delivering certain subjects/courses online
- Becoming Screen based Education
- Social and Cultural factor



Online and Digital Education- Way Forward

- Suitable teacher training to prepare teachers as effective online educators
- Change in pedagogy for online/digital education
- Online assessment in different approach
- Blended approach with online and experiential learning
- Leverage existing platforms for creating virtual labs
- Educational programs to be made available 24*7 in different languages
- Availability of affordable computing devices to eliminate digital divide
- Optimize and expand existing digital platforms and ICT based initiatives
- Provide assistive tools for monitoring progress of diverse group of learners
- Invest on creation of open, interruptible, evolvable public digital infrastructure
- Provide two-way audio and video interface for holding online classes

Conclusion

It is worth mentioning John Dewey's famous remark, "If we teach today's students as we taught yesterday's, we rob them of tomorrow." This advocacy for constant change still resonates across today's educational climate irrespective of geographical boundaries. Responding to this forward-thinking notion Prof. Mukhopadhyay, a renowned figure in planning and administration of educational technology in India in an Editorial of ETMA (2021) has beaconed this change saying that teachers must experience learning before asking students to learn in a particular way. This notion of constant change in pedagogy has rightly been captured in the NEP 2020.

This is an undeniable fact that this century is the time of revolutionary interventions in the field of Information and Communications Technology. ICT has rooted in the present society and it information-intensive and it brought sudden changes across the world. Moreover, the pandemic created a favorable atmosphere for it in the entire world. The National Education Policy is the first and the most important education

policy of this century and such a comprehensive national policy was drafted later thirty-four years in the country. The policy sensed the present societal needs and necessities of the country and acknowledged the role of both technology and the nature of education. It comprehensively discussed all the aspects of the usage of technology to provide universal access to quality education including schools and higher education institutions. It clearly suggested all digital resources required in the present education system. The policy also concedes the significance of technology to promote interdisciplinary research and innovation and to enhance learning. assessment. planning and administration of education. The policy is a prototypical tool towards building digital India and consequently building self-reliant India.

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