New Education Policy 2020 and ICT as a Tool of knowledge Transformation in Indian Education system

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Abstract

"With advances in technologies Al and augmented reality, we clearly have foreseen an increasing number of hybrid jobs where a human's vocational skills will complement the capabilities of high-tech equipment. The higher education system is therefore, necessary to prepare students for such jobs," (Dr. K. Kasturirangan). In the light such changing scenario of education system the Union Cabinet on July 29th, 2020 approved the New Education Policy and the Policy has seen an overhaul of the system in Higher Education with aims at making "India a Global Knowledge Superpower." It has given importance on holistic development of learners as well as single regulatory for higher education with increased in access, equity and inclusion with targeting greater GER including vocational education and to make all HEI's multidisciplinary institutions with granting autonomy, stresses on academic bank of credit and multiple entry and exit points in higher education, and use of technology in educational processes, etc.

This paper mainly highlights on changes in the new system of higher education in the light of NPE 2020 from the Assam's perspective. The investigators mainly adopt descriptive method as well as secondary sources as a means of gathering data. The study concluded that NPE-2020 brings many scope and opportunities for the new generation to equip themselves to face new challenges and in this process the ICT which transform the whole education system especially higher education sector by providing skill based education with multiple entry and exit with employment opportunities is significant one, and it is very much beneficial for the state like Assam, as state is growing in socio-economic perspective.

Keywords: ICT, NPE 2020, Indian Education System.

Introduction:

Education is an inevitable segment in our life for realizing and development of our innate qualities so forth contribute to the welfare of the nation. But education is a dynamic process; so, with the changes of time the aim of education and course content along with teaching-learning process has been changing. The changing has been appealed because the needs and requirements of the society are also being changed with the changes of time. For that reason, the Government of India has been constituted education commission time to time for evaluating the then existed education system and to suggest for rectifying in the requirements. Similarly, to cope with the situation of our education system the education policy has also been changing time to time. The New Education Policy-2020 is 3rd number in serial number for Independent India, prior to that in 1968 and 1986 first and second education policy was implemented respectively.

The aim of education system is the reflection of philosophy of life of that existed society. Thus, the aim of education of our country is also the reflection of our greater society, which includes the influence of religion, culture, tradition, ideology, etc. However, with the advancement of science and technology and impact of globalization there has been taking place changes in the aim of education. The globalized world demands quality, competent and efficient personnel in working field; so has the education been framed to meet the demand of the present situation. For that the government of India has also been trying to upgrade the level of quality of education since Independence; the new education policy 2020 is one of them. Through this policy it has been trying to rectify the whole education system of our country to make efficient and capable of our coming up generation to face the challenging world. In this paper it has been trying to trace only the higher education system as NEP-2020 frame out. It will be discussing on provision kept for ICT application in knowledge transaction in higher education system.

Education is seen as a key for transformation of individual for the development of nation. A nation is said to be valued when a sizeable number of the citizens have quality education which includes learners who are healthy, well-nourished they are ready to participate and learn, as well as supported in learning through their families and communities. Education systems around the world are under increasing pressure to use the new information and communication technologies (UNESCO, 2002). UNESCO (2003:5) pointed out that "This vision of education emphasizes a holistic, interdisciplinary approach to developing the knowledge and skills needed for a suitable future changes in values,

behaviour and process of life." So, ICT has made an impact on the quality as well as quality of teaching-learning, research in the traditional and distance education institutions using it.

In this information boom era it is driven advance technology, accumulation of information is a major booster for social interactions and dynamics. So ICT acts as a catalyst and at the same time a tool for inducing educational reforms which transforms our students from mere job seekers to employers of labour that are knowledge and technology driven. Therefore, an autonomous body, the National Educational Technology Forum (NETF) will be created to provide a platform for the free enhance of ideas on the use of technology to enhance learning assessment, planning and administration. Hence, education is changing, not by substitution but a transformation in taking place. This transformation is brought about by changes in the student population and by changes in the demands of employers. So, education is becoming more and more student centred and competence based. The shift from a teacher centred to a student centred education does not mean that education will become independent of teachers. But the interaction with teachers remains very important and modern ICT tools facilitate this interaction. Furthermore, ICT is used to support subject specific learning; it can also have a constructive impact on attainment.

NEP-2020:

The National Educational Policy-2020 is the first education policy of the 21st century and aims to address the many growing developmental imperatives of our country. This policy proposes the revision and revamping of all aspects of the education structure, including its regulations and governance to create a new system that is aligned with the aspiration goals of the 21st century education including SDG4, while building upon India's traditions and value systems. The National Educational Policy lays particular emphasis on the development of the creative potential of each individual. It is based on the principle that education must develop not only cognitive capacities-both fundamental capacities' of literacy and numeracy and higher order cognitive capacities, such as critical thinking and problem solving abilities as well as social, ethical and emotional capacities and dispositions.

In the light of such changing scenario of education system the Union Cabinet on July 29th 2020 approved the New Education Policy and this policy has seen an overhaul of the system in Higher Education with aims at making "India a Global Knowledge Superpower." The purpose of the education system is to develop good human being capable of rational thought and action, possessing compassion and empathy, courage and scientific temper and creative imagination with sound ethical

moorings and values. It aims at producing, engaged, productive and contributing citizens for building an equitable, inclusive and plural society as envisaged our constitution.

Higher Education:

Higher education plays an extremely important role in promoting human as well as societal well being and in developing India as envisioned in its constitution- a democratic, just socially conscious, cultured and human nation upholding liberty, equity, fraternity and justice for all. Higher Education must lay the foundation for lifelong learning. In the light of 21st century requirements, quality higher education must aim at to develop good thoughtful, well rounded and creative individuals. The 21st century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages as well as professional, technical and vocational subjects. A quality higher education must enable personal accomplishment and enlighten constructive public engagement and productive contribution to the society. It must prepare students for more meaningful and satisfying lives, and also work roles as well as enable for economic independence. NPE-2020 emphasis on higher investment to improve quality and equity of education with increased the public expenditure on education upto 6% of GDP. In order to bring the focus back on education and learning the MHRD will be re-designed as the Ministry of Education. This policy emphasizes "Light but tight" regulation by a single regulator for higher education. It leads moving towards a higher educational system consisting large, multidisciplinary universities and colleges, with at least one in or near every district and with more HEI's across India that offer medium of instruction or programme in local or Indian languages. Besides these it also increased access, equity and inclusion through a range of measures, including greater opportunities for outstanding public education, scholarships by private/philanthropic universities for disadvantaged and underprivileged students. Online education, Open and Distance Education (ODL), and all infrastructure and learning materials accessible and available to learners with disabilities. Thus, higher education significantly contributes towards sustainable livelihoods and economic development of the nation as India moves towards becoming a knowledge economy and society make and more young Indians are lively to aspire for higher education.

ICT:

ICT means 'Information and Communication Technology' and it refers to technologies that provide access to information through telecommunication. ICT includes wireless networks,

cell phones, internet and other communication mediums. UNESCO defined ICT as a "scientific technological and engineering discipline, and management technique uses in handling information; its application and association is with social, economic and cultural matters." With the advancement of ICT, especially the rapid development of emerging technologies, provide great potential with respect to the enhancement of interactivity in its complex level and functionality. Thus, ICT's are making dynamic changes in our life including teaching-learning process.

"With advances in technologies Al and augmented reality, we clearly have foreseen an increasing number of hybrid jobs where a human's vocational skills will complement the capabilities of high-tech equipment. The higher education system is, therefore, necessary to prepare students for such diverse jobs," (K. Kasturirangan). The integration of information communication and technologies (ICT) into education takes the front burner in many developing countries of the world and educational system of "chalk and talk" with modern technological tools that makes teaching and learning more meaningful to both teacher and the taught. It has given importance on holistic development of learners and well-rounded individual equipped with the key 21st century skills, at least 50% till 2025, and aims at single regulatory for higher education as well as increased in access, equity and inclusion with targeting GER at higher education including vocational education from 26.3 % to 50% by 2035; moreover, to make all HEI's multidisciplinary institutions by 2040. Besides those reforms in examination system with continuous and comprehensive evaluation, granting autonomy to higher institutions, stresses on academic bank of credit and multiple entry and exit points in higher education, use of technology in educational planning and, Administration and management, teaching-learning and assessment, Divyang Friendly Education Software, E-content in Regional Language, Virtual lab's, National Educational Technology and Research Forum, Digitally Equipping Schools, teachers and students, etc are also the significant areas of NEP-2020.

Objectives of the Study:

The main objective of the paper is to study the ICT as a tool of knowledge transformation in new system of education in the light of New Education Policy 2020 and its relevance with special reference to Assam.

Methodology of the Study:

The investigators mainly used descriptive method based on secondary data of government records, news papers, magazines, journals, websites, etc.

Discussion of the Study:

Assam is situated in the centre of NE region of India and bordering West Bengal and two countries Bangladesh and Bhutan. Of the total geographical area 98.4% area is rural and out of the total population 86% are living in rural area. The state has heterogeneous population with socio-cultural and ethnic diversity, and over 75% of the state's population depends on agriculture as farmers, agricultural labourers, or both of their livelihoods. Almost 36% of total geographical land area of the state are using for cultivation.

The NPE 2020 has targeted to offer employment opportunities to creative individuals and to create highly skilled workforce for contributing to the growth of national economy, so higher education has to be redesigned or to be re-adjusted through this policy. In this study main focuses are on NPE-2020 regarding Higher Education and role of ICT as a tool of knowledge transformation:

➢ **Holistic and Multidisciplinary Education**:

The 21st century requirements regarding quality higher education must aim to develop good, thoughtful, well-rounded and creative individuals. The purpose of quality higher education is more than the creation of greater opportunities for individual employment. A holistic and multi disciplinary education would aim to develop all capacities of human beings – intellectual, aesthetic, social, physical, emotional, moral in a integrated manner which will develop individuals well rounded who can handle all critical issues of 21st century in different fields across arts, humanities, languages, sciences, social sciences, and professional, technical, vocational, soft skills and rigorous specialization in a chosen fields. Therefore, large multidisciplinary universities and colleges will facilitate the move towards high quality holistic and multidisciplinary education. Besides these the flexibility and innovative curricula of all HEIs shall include credit –based courses and projects in the areas of community engagement and service, environmental education and value based education. This will be encouraged by increased faculty and institutional autonomy in setting curriculum with using pedagogy like communication, discussion, research etc with cross disciplinary and interdisciplinary thinking. But in the context of Assam, the picture will be little different as mostly rural agriculture based society and most of people are unaware about recent innovations as well as less number of educational institution with poor infrastructure and less faculty. So it will be challenging for Assam to adopt multidisciplinary and holistic approach specially for higher level of education.

> **Institutional Restructuring and Consolidation:**

The main vision of higher education will require a conceptual perception /understanding for what constitutes a higher education institution. So the main thrust of this policy regarding higher education is to end the fragmentation of higher education by transforming higher education institutions into large multidisciplinary universities, colleges, and higher education institution clusters/knowledge hubs, each of which will aim to have 3000 or more students. It will give emphasis on teaching and research, i.e. Research intensive universities which will give emphasis on teaching but will conduct significant research.

In addition to these, HEIs will have other crucial responsibilities which they will discharge through appropriate resourcing and structures. These include supporting other HEIs in their development, community engagement and service, contribution to various fields of practice faculty development for higher education system and support to school education. In this context Assam as a rural based area so it will be beneficial a lot as it provides opportunities for community engagement and service as well as faculty development programme. This will provide opportunities to engage most of rural educated people in this sector as well as also provide scope to take challenges of rural society as a topic of research for solving the problems and upliftment of rural society.

> **Equity and Inclusion in Higher Education:**

Access to high quality education throughout all the HEI's is not same, so this policy envisions an improvement in the standards across higher educational institutions, thereby ensuring equitable access to quality education for all. For this purpose policy specified certain additional actions to be adopted by all HEI's. It will be a great opportunity for all communities living in the state of Assam to get such qualitative education in their native places and own or regional language. It will also help to explore hidden quality of all learners.

> **Reimaging vocational Education:**

Vocational education is perceived to be inferior to mainstream education and meant largely for students who are unable to cope up with the later. This is a serious concern that can only be dealt with by a complete re-imagination of how vocational education is offered to students in the future. One of the primary reasons for the small numbers of students receiving vocational education is the fact that vocational education has in the past focused largely on grades 11-12 and on dropouts in grade 8 and upwards. So this policy aims to overcome the

social status hierarchy associated with vocational and requires integration of vocational education programme in mainstream education in all education institutions in a phased manner. At least 50% of learners, by 2025, through the education system will get exposure to vocational education for which a clear action plan with targets and timelines will be developed. Individual institutions that adopted early must innovate to find out models and practices that work and then share these with other institutions through mechanisms set up by NCIVE, so as to help intent the reach of vocational education. Thus the national skill qualifications framework will be detailed further for each discipline vocation and profession. Further Indian standards will be aligned with the international standard classifies of occupations maintained by the international labour organization. In this regard Assam will be more beneficial because if the skill/vocational education is provided to the students then they can help the rural society in up gradation as well as in proper use of raw materials from rural cultivation; thus in both socio-economic development as well as up gradation of society it will be helped.

> **Online and Digital Education: Ensuring Equitable Use of Technology:**

India is a global leader in information and communication technology and in other cutting-edge such as space. The digital India campaign is helping to transform the entire nation into digitally empowered society and knowledge economy. The NPE 2020 recognizes the importance of leveraging the advantages of technology while acknowledging its potential risks and dangers. In the meantime, existing digital platforms and ongoing ICT-based educational initiatives must be optimized and expanded to meet the current and future challenges in providing quality education for all. This policy has been formulated at a time when an unquestionably disruptive technology-artificial intelligence 3D/7D Virtual Reality has emerged. As the cost of AI-based prediction falls, AI will be able to match or outperform and therefore, be a valuable aid to even skilled professionals such as doctors in certain predictive tasks. For this an autonomous body, the National Educational Technology Forum will be created to provide a platform for the free exchange of ideas on the use of technology enhance learning, assessment, planning, administration and soon for both school and higher education.

The aim of the NETF will be to facilitate decision making on the induction, deployment, use of technology, by providing to the leadership of education institutions, state and central governments etc the latest knowledge and research as well as the opportunity to consult and share best practices. In the light of NEP 2020 the picture of Assam will be significant and challenging one in

future. As teachers require suitable training and develop to be effective online educators. It cannot be assumed that a good teacher in a traditional classroom will automatically be a good teacher in an online classroom. Besides these certain types of courses/subjects, such as performing arts and science practical's have limitations in the online digital space. So, it is a challenging approach for Assam.

➤ Students Activity and Participation:

The policy stressed that towards the end, student's will be involved in activity clubs sports, culture/arts clubs, activity clubs, community service, etc and they will also be involved in decision making bodies, committees and processes of the institution. Through this it aims to enhance the educational experiences of the students as well as provide a method for HEIs to be more responsive to feedback and needs of students. Besides these, however, in every educational institution, there shall be counselling systems for handling stress and emotional adjustments of the students, and a systematised arrangement should be created to provide the requisite support to the students from the rural backgrounds and small towns, including increasing hostel facilities. It is expected to be better academic experience from this policy and in post academic life they can perform in more effective way as well as backward areas children of the state will get opportunities to come out in large way.

➤ Optimal learning environments and support for students:

Effective learning requires a comprehensive approach that involves appropriate curriculum, engaging pedagogy, continuous formative assessment and adequate student support. High quality pedagogy is then necessary to successfully impart the curricular material to students, pedagogical practices determine the learning experiences that are provided to students, which directly influence outcomes. First in order to promote creativity, institutions and faculty will have the autonomy to innovate on matters of curriculum, pedagogy and assessment within a board framework of higher education qualifications that ensures consistency across institutions and programmes and across the ODL, online and traditional "in class" modes. So, HEIs shall also move away from high stakes examinations towards more continuous and comprehensive evaluation. In Assam it is following from primary to the higher level and it is already started now. In higher level CBCS system have been provided which offers flexibility and beneficial for students.

➤ Motivated, energised and capable faculty:

The important factor in the success of higher education institutions is the quality and engagement of its faculty. The policy stresses on freedom to be given to faculty in designing their own curricular and pedagogical approaches being within the approved framework. So, empowering the faculty to conduct innovative teaching, research and service as they see best will be a key motivator and enabler for them to do truly outstanding creative work. In this context the scenario of Assam is not so sound; one such barrier is teacher- student ratio. Teaching duties and proper facilities as well as training is not upto the mark. So, problems may arise if not chalk out plan to tackle in this field.

➤ Catalysing Quality Academic Research in All fields through a new National Research Foundation:

Knowledge creation and Research are critical in growing and sustaining a large and vibrant economy, uplift society and continuously inspiring a nation to achieve even greater heights. India has a long historical tradition of research and knowledge creation in disciplines ranging from science and mathematics to art and literature to phonetics and languages to medicine and agriculture. To build on these various elements in a synergistic manner and thereby truly grow and catalyze quality research in the nation, this policy envisions the establishment of a National Research Forum. The goal of NRF will be to enable a cultural of research to permeate through our universities. Thus this policy envisions a comprehensive approach to transforming the quality and quality of research in India. This includes definitive shifts in school education to a more play and discovery-based style of learning with emphasis on the scientific method and critical thinking. But in the light of Assam regarding research in Higher Education it is critical one. As best research in the world has occurred in multidisciplinary universities settings which is just an imagination in the context of Assam.

➤ Internalization:

Through internationalisation it has targeted to make global study destination of Indian HEI's in affordable cost and also encourage high performing Indian universities to set up campuses in other countries, and selected foreign universities will be permitted to open campuses in India. Further, research collaboration and student's exchanges programmes between Indian institutions and global institutions will be promoted through special efforts. From Assam perspective, many students are

moving different parts of our country as well as to foreign countries for pursuing higher education due to lack of such high performing institutions. If high performing universities campus will open up in the state then it will be beneficial for such high aspiring students.

> ➢ **Curbing Commercialization of Education**:

Public and private all HEI's will be run through NHERA and there will be common national guidelines for private institution, and through multiple mechanisms it will try to check and stop of commercialization of higher education. Disparity is seen among the universities and higher educational institutions as a result complexity is arouse in certain areas, so if common rules and regulations will be implemented in the state then such complexity will not arise as well as if commercialization of higher education will curb then many poor students will get relief from financial burden arising for pursuing higher education.

> ➢ **Transforming the Regulatory System of Higher Education**:

The existing regulatory system of higher education is lopsided and defectiveness is there so the new education policy has formulated certain principles to address those issues, like that it will be performed by empowered bodies with distinct and independently. Through this it is believed that it will checks-and balances in the system, minimise conflicts of interest, and eliminate concentrations of power, and this will be performed through a common regulatory system for the entire higher education sector. This regulation will help the state higher institutions to excel in their academic performance.

> ➢ **Effective Governance and Leadership for Higher Education Institution**:

To create of a culture of excellence and innovation it is required effective governance and good leadership in higher educational institutions. Such culture can be nurtured through the merit-based appointments of institutional leaders only. Except IIT and IIM, many HEI's are not having such quality. In this regard institutions affiliating to universities have certain obligations in enhancing culture of excellence and motivation for being controlled by such universities. So, this policy aims that all HEI's must target to become independent self-governing institutions pursuing innovation and excellence, by adopting suitable measures, like ensuring the leadership of the highest quality and promotes a culture of excellence. For this purpose, for each HEI there shall be formed a Board of Governors (BoG), and its members should be highly qualified,

competent and dedicated individual, and the Board of Governors will be responsible in maintaining excellence of the institutions. It will open scope for state HEIs to excel and innovate in diverse areas if such meritorious personnel will be given preference.

Suggestion:

To make use of ICT enabled teaching –learning system we have to consider the following important issues-

❖ Culture of educational institutions and Society: The working culture of educational institution and teachers' ICT-related perceptions and performance are visible symptoms of the deeply rooted cultural beliefs and practices that have hindered the efforts to change. So, ICT which is conceived as an agent of change has failed to cause change. Therefore, it needs to initiate and build work culture related to use of ICT in education institutions, and irrespective of all community it needs to change attitude considering present situation for better transformation of society.

❖ The role of the leaders & teachers: The knowledge of ICT use of head of the institution and faculty, and understanding on curricular, administrative, financial and social dimensions of ICT use in education will make success of ICT application in higher educational institutions. Moreover, computer, internet and electricity should be available to access to both teachers and learners. A rich variety of educational software will need to be developed and made available for students and teachers at all levels. All such software will be available in all major Indian languages and will be accessible to a wide range of users including students in remote areas and divyang students.

❖ ICT in Classroom Instruction: ICT tools in classroom instruction make the teaching-learning process more effective and highly interactive. Research has exhibited that students performing higher level and instructor satisfaction can be produced in ICT enabled learning process. In the context of Assam if different ICT enabled facilities like PowerPoint presentation, youtube, CCTV, video conferencing, teleconferencing, smart boards, Google classroom, etc should be provided to the educational institutions then it will be helpful to reach the goals of NPE 2020 in Assam.

❖ Role of Teacher in ICT enabled Teaching-Learning Process: Teacher is the main pillar of teaching-learning process. Teachers to be effective in work with ICT in classroom, teachers need play different role. ICT cannot replace the teacher; it can aid the teacher in the process of teaching and make the teaching-learning process more interactive. It also depends on competency

and skill of teachers, so teachers have to realize that they need to adopt technology skills in effective way for which training of teachers are most essential. Elearningeuropa.info (2005, P-1) mentions that the process of transferring knowledge is not be the only source of all knowledge anymore, but they will be advisors, students' learning process. This is supported by Newhouse (2002, P.25) the teachers will always have authority to direct what their students should learn by using teaching instruction as well as creating learning environment. Implementing ICT on class means teacher should be learning model.

❖ To remain relevant in the fast –changing field of educational technology, the NETF will maintain a regular inflow of authentic data from multiple sources including educational technology innovations and practitioners and will engage with a diverse set of researchers to analyze the data. To support the development of a vibrant body of knowledge and practice, the NETF will organizer multiple regional and national conferences, workshops etc to solicit inputs from national and international educational technology researchers, entrepreneurs and practioners. Its provides also scope for doing academic research work in many relevant issues. In response to MHRD's formal recognition of a new disruptive technology, the National Research Foundation will initiate or expand research efforts in technology whioch will be very much beneficial for developing state like Assam.

❖ The matter of commercialization of education has been dealt with by the policy through multiple relevant fronts: including multiple entry and exit by offering various course and programme offerings, the substantial investment in public education and mechanisms for good governance of all institutions etc which will benefit lots of needy sections of students of our country.

Conclusion:

Transition, transformation and revolution are the scenario of today's educational system. Allocation of ICT in education and teaching learning process has changed the traditional system of learning to modern ICT based learning. In this regard NEP 2020 will provide us a fully new system of education with blessings of technology by introducing different innovative schemes in the field of education. Several surveys are showing that ICT use in education system of developed nations is comparatively advanced than ICT use in education system of developing countries. There is a consensus that the development of any country depends upon the quality of education programme offered to citizens. ICT despite of its known limitations but it is

believed to be beneficial in this regard. The computer and the internet are especially useful to enhance student engagement in learning and positively impact students' performance and achievement. Therefore, teachers have to realize that if the students are to achieve a high level of competency and competitiveness, they have no other choice but to adopt technology as an integrated tool in the field of education.

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