

REFORMS AND INITIATIVES IN HIGHER EDUCATION SYSTEM

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Higher education is the most powerful tool to build a knowledge-based society. National Knowledge Commission (2006) recommended that there is a need to focus on quantity and quality of higher education. New reforms in the education system help to maintain creativity, adaptability and quality of education. There is a felt need for reforms in education due to sociological, political, economic and technological changes. In this context higher education in India is undergoing a big transformation in terms of structural, institutional, transactional and evaluation reforms. The digitalisation of higher education has also been initiated by the government of India in a big way. For the last two decades, the higher education system has positively leapt in various directions to meet the global challenges and ever-increasing demands of the society. This paper highlights reforms and new initiatives taken by the Ministry of Human Resource and Development (MHRD) for the higher education system of India.

KEYWORDS: Higher Education, Reforms, Initiative in Higher Education

REFORMS AND INITIATIVES IN HIGHER EDUCATION SYSTEM

Higher education system in India was implanted by Britishers to serve their economic, political and administrative interests. After independence, higher education system has been expanded tremendously. The massive system of higher education in India consists of 819 (367 state and 47 central) universities,

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123 institutions 'deemed-to-be universities,' 282 private universities, 20 institutes of national importance and other educational institutions (polytechnics, teacher education etc). The country's Gross Enrolment ratio in higher education has increased from 24.5% in 2015-16 to 25.2% in 2017-18 (AISHE, 2017). To cater to the need of massive number of students there is a need of new initiatives in higher education system. National Knowledge Commission (2006) recommended that there is a need to focus on quantity and quality of higher education. National Knowledge Commission (2006) reported major areas of concerns like expansion and accessibility of higher education, financing, institutional architecture of universities, governance and administration, content in terms of curriculum and examinations and regulatory framework and faculty and research. MHRD has taken many initiatives to achieve the objective of quality, equity and accessibility. Some of these are:

RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)

Rashtriya Uchchatar Shiksha Abhiyan (RUSA) was introduced in 2013 by MHRD to meet the challenges such as financing and management, access, equity, relevance and re-orientation of policies and programs for laying emphasis on values, ethics and quality of higher education. RUSA is a new approach towards funding higher education in state universities, based on key principles of performance-based funding, incentivizing well performing institutions and decision making through clearly defined norms. It aims to provide greater autonomy to universities as well as colleges and has a focus on equity-based development, and improvement in teaching-learning quality and research.

NATIONAL EDUCATION POLICY (NEP)

The National Education Policy, 2016 provides a framework for the development of education in India for coming years. It seeks to address the agendas relating to the goals and targets that failed to translate the previous national policies and the current and emerging national development and education sector-related challenges. It has framed some objectives regarding higher education and has pointed out the need for reforms in higher education system in order to ensure equitable access to tertiary education, including technical and professional education, narrow group inequalities in access to higher education, and improve teaching and research, promote innovation and generate new knowledge across all higher education institutions and to enable all enrolled to attain the specified learning outcomes and employable skills (National Educational Policy, 2016).

ALL INDIA SURVEY ON HIGHER EDUCATION (AISHE)

Ministry of Human Resource Development has been endeavoured to conduct an annual web-based survey called All India Survey on Higher Education (AISHE) to portray the status of higher education in the country, since 2010-11. The survey covers all the institutions in the country engaged in imparting higher education. Data has been collected on several parameters such as student enrolment programmes, examination results, finance, and infrastructure. Indicators of educational development such as institution density, gross enrolment ratio, pupil-teacher ratio, gender parity index, per student expenditure has also been calculated from the data collected through AISHE. It is useful in making policy decisions and research for development of education sector.

NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)

The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September, 2015. This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations broad understanding arrived at by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions. The parameters broadly cover five aspects of university system Teaching, Learning and Resources, Research and Professional Practices, Graduation Outcomes, Outreach and Inclusivity, and Perception.

CHOICE BASED CREDIT SYSTEM (CBCS)

Choice Based Credit System is an initiative of University Grants Commission (UGC) in 2009, which enhances and promotes educational liberalization of existing conventional higher education system. CBCS opens pathways for learning opportunities and also manifest learning goals and objectives. A credit system for higher education measures various parameters like student performance, outcomes, entrepreneurship skills, contact hours, innovation and creativity etc. It allows the students to choose the course among a large number of electives within a department or outside the department. Greater number of choice for a student enables him to acquire relevant interdisciplinary knowledge besides the core competence in the subject in which he is enrolled. Choice based credit system is a recent phenomenon in Indian universities. UGC had sent guidelines forcing all universities to implement the Choice Based Credit System (CBCS) from the 2015-16 academic

session. JNU, IITs and Pondicherry University are the pioneer institutions of choice based credit system in Indian scenario.

PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING (PMMMNMTT)

- Quality of Teacher education is very important for any country. Teacher education in India deteriorated in terms of teacher, teaching, teacher profession and professional development and quality. This mission would address, on the one hand, current and urgent issues such as supply of qualified teachers, attracting talent into teaching profession and raising the quality of teaching in schools and colleges. On the other hand, it is also envisaged that the teachers' education mission would be to pursue long term goals of building a strong professional cadre of teachers by setting performance standards and creating top class institutional facilities for innovative teaching and professional development of teachers. This scheme has launched in 2014-15 for a period of three years i.e. from 2014-15 to 2016-17 during the XII Plan. This scheme has following goals:

- To ensure a coordinated approach so as to holistically address the various shortcomings relating to teachers and teaching across the educational spectrum ranging from school education to higher education including technical education; using the best international practices for excellence.
- To create and strengthen the institutional mechanisms (Schools of Education, Institutes of Academic leadership and Education Management, Subject based networks, Teaching-learning Centres etc.) at the Centre and in the States, for augmenting training and discipline-wise capacity building of faculty and their periodic assessment for excellence.
- To empower teachers and faculty during training, re-training, refresher and orientation programmes in generic skills, pedagogic skills, discipline specific content up gradation, ICT and technology enabled training and other appropriate interventions.

GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)

Govt. of India approved a new programme titled Global Initiative of Academic Networks (GIAN) in Higher Education, which aims at tapping the talent pool of international scientists and entrepreneurs to encourage their engagement with higher education institutions in India to accelerate the country's existing academic resources, pace of quality reforms, and escalating India's scientific and technological capacity to global excellence. Guest Lectures by renowned

experts of international and national repute are delivering in IITs, IIMs, IISERs and other institutions in the country as initiated by Minister of Human Resource Development on 29th June, 2014.

GYAN PRABHA

This scheme aims at motivating a person with disability (PwD) covered under the National Trust Act to pursue higher education or skill development courses. There are three categories of courses that Gyan Prabha supports i.e. (1) professional courses, (2) graduation and post-graduation courses, (3) vocational courses. It is an initiative of Minister of Social Justice and Empowerment to encourage PwDs for pursuing educational/ vocational courses like graduation courses, professional courses and vocational training leading to employment or self-employment. It provides a specific amount per course to a PwD which will generally cover fees, transportation, books, out of pocket expenses (OPEs) etc.

STUDY WEB OF ACTIVE LEARNING FOR YOUNG ASPIRING MINDS (SWAYAM)

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of educational policy viz., access, equity and quality. SWAYAM platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft and would be ultimately capable of hosting 2000 courses and 80000 hours of learning: covering school, under-graduate, post-graduate, engineering, law and other professional courses. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. In order to ensure best quality content are produced and delivered, seven National Coordinators have been appointed: They are NPTEL (National Program on Technology Enabled Learning) for engineering, UGC for post-graduation education, CEC (Consortium for Educational Communication) for under-graduate education, NCERT and NIOS for school education, IGNOU for out of the school students and IIMB (Indian Institute of Management Bangalore) for management studies.

MASSIVE OPEN ONLINE COURSE (MOOC)

SWAYAM offers Massive Open Online Courses (MOOCs). MOOCs are such online courses which are developed as per the pedagogy following the four quadrant approaches i.e. (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts.

Using MOOCs for training and development requires less capital investment and relatively more technical and instructional capabilities.

SWAYAM PRABHA

MHRD has launched 32 Direct-To-Home (DTH) educational TV channels called “SWAYAM Prabha” to disseminate and broadcast educational content to the masses on 24x7 basis, and the content developed under SWAYAM would be used for transmission in SWAYAM Prabha (SP) DTH channels.

NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING (NPTEL)

National Programme on Technology Enhanced Learning (NPTEL) is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science during the years 1999-2003. It has created content for 100 courses as web based supplements and 100 complete video courses, for 40 hours of duration per course.

Five engineering branches (Civil, Computer Science, Electrical, Electronics and Communication and Mechanical) and core science programmes that all engineering students are required to take in their undergraduate engineering programme in India were chosen initially. Contents for the above courses are based on the model curriculum suggested by All India Council for Technical Education (AICTE) and the syllabi of major affiliating Universities in India.

INFORMATION AND LIBRARY NETWORK (INFLIBNET)

Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre of the University Grants Commission (UGC) of India. It is a major National Programme initiated by the UGC in March 1991 with its headquarters at Gujarat University Campus, Ahmedabad. Initially started as a project under the IUCAA, it became an independent Inter - University Centre in June 1996. INFLIBNET is involved in modernizing university libraries in India and connecting them as well with information centres in the country through a nation-wide high speed data network using the state-of-art technologies for the optimum utilisation of information. INFLIBNET is set out to be a major player in promoting scholarly communication among academicians and researchers in India.

SHODHGANGA

'Shodhganga' is the name coined to denote digital repository of Indian Electronic Theses and Dissertations set-up by the INFLIBNET Centre. The word "Shodh" originates from Sanskrit and stands for research and discovery. The "Ganga" is the holiest, largest and longest of all rivers in Indian subcontinent. Shodhganga stands for the reservoir of Indian intellectual output stored in a repository hosted and maintained by the INFLIBNET Centre. The Shodhganga@INFLIBNET is set-up using an open source digital repository software called DSpace developed by MIT (Massachusetts Institute of Technology) in partnership between Hewlett-Packard (HP). The DSpace uses internationally recognized protocols and interoperability standards. Shodhganga provides a platform for research scholars to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers. The UGC Notification (Minimum Standards & Procedure for Award of M.Phil. / Ph.D Degree, Regulation, 2016) dated 5th May 2016 mandates submission of electronic version of theses and dissertations by the researchers in universities with an aim to facilitate open access to Indian theses and dissertations to the academic community world-wide. Online availability of electronic theses through centrally-maintained digital repositories, not only ensure easy access and archiving of Indian doctoral theses but will also help in raising the standard and quality of research. This would overcome serious problem of duplication of research and poor quality resulting from the "poor visibility" and the "unseen" factor in research output.

e-SHODH SINDHU

Based on the recommendation of an Expert Committee, the MHRD has formed e-ShodhSindhu merging three consortia initiatives, namely UGC INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-ShodhSindhu provides current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act. Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rates of subscription. It provides access to subscription-based scholarly information (e-books and e-journals) to all educational institutions. It provides access to

scholarly content available in open access through subject portals and subject gateways.

e-PG PATHSHALA

e-PG Pathshala is a portal that enabled post graduate students to download e-learning material. The MHRD, under its National Mission on Education through ICT, taken an initiative in 2011 to develop e-content in 77 subjects at postgraduate level. The content and its quality being the key component of education system, it is proposed to create high quality, curriculum-based, interactive content in different subject across all disciplines of social sciences, arts, fine arts & humanities, natural and mathematical sciences and linguistics and languages. E-content, so developed would be available in open access through a dedicated learning management system as well as through Sakshat Portal.

NATIONAL DIGITAL LIBRARY (NDL)

Ministry of Human Resource Development under its national mission on education through information and communication technology has initiated the National Digital Library of India (NDL India) pilot project to develop a framework of virtual repository of learning resources with a single window search facility developed at IIT Kharagpur. Filtered and federated searching is employed to facilitate focused searching so that learners can find out the right resource with least effort and in minimum time. NDL India is designed to hold content of any language and provides interface support for leading Indian languages (currently Hindi and Bengali). It is being arranged to provide support for all academic levels including researchers and life-long learners, all disciplines, all popular form of access devices and differently-abled learners. It is being developed to help students to prepare for entrance and competitive examination, to enable people to learn and prepare from best practices from all over the world and to facilitate researchers to perform inter-linked exploration from multiple sources. The pilot project is devising a framework that is being scaled up with respect to content volume and diversity to serve all levels and disciplines of learners.

IMPACTING RESEARCH INNOVATION AND TECHNOLOGY (IMPRINT)

MHRD has drafted a new and catalytic scheme called Impacting Research Innovation and Technology. IMPRINT is a first-of-its-kind Pan-IIT and IISc joint initiative to develop a (a) New Education Policy, and (b) Roadmap for Research to solve major engineering and technology challenges in selected domains needed by the country. Each technology domain of IMPRINT along

with the underlying themes, targets and topics embedded in them represent the immediate goals before the nation for engineering innovation and intervention.

The Domains and Coordinators of IMPRINT, steered by IIT Kanpur (as the national coordinator), are: (i) Health care: IIT Kharagpur (ii) Information and Communication Technology: IIT Kharagpur (iii) Energy: IIT Bombay (iv) Sustainable Habitat: IIT Roorkee (v) Nano-technology Hardware: IIT Bombay (vi) Water Resources and River systems: IIT Kanpur (vii) Advanced Materials: IIT Kanpur (viii) Manufacturing: IIT Madras (ix) Security and Defence: IIT Madras (x) Environmental Science and Climate Change: IISc, Bangalore. IMPRINT is designed first to map the strength and weakness in our system, define the goals, identify logical course and create a roadmap to champion the engineering targets.

NATIONAL ACADEMIC DEPOSITORY (NAD)

National Academic Depository (NAD) is an initiative of Ministry of Human Resources Development, Govt. of India (MHRD) to facilitate digital issuance, storage, access and verification of Academic Awards issued by Academic Institutions. NAD is a Unique, Innovative and Progressive initiative under “Digital India” theme towards achieving Digital enablement of the Education Records. NAD is a complete system for Issuing Online Certificates to Well Identified and Registered Students. NAD integrates directly with Boards / Universities who issue Certificates and hence ensures Authenticity of Certificate Records.

NAD has following benefits:

- Online, Quick, Secure Issuance of Academic Certificates.
- No need to print and distribute certificates.
- Certificate records maintained in well organised IT system for long period.
- Duplicate Certificate Issuance, Certificate Verification services delivered online through NAD.
- Significant saving in administrative processes.

NSDL DATABASE MANAGEMENT LIMITED (NDML)

NSDL Database Management Limited (NDML) has been appointed by University Grants Commission (UGC) as Depository for NAD. NDML will perform all the required functions for efficient functioning of NAD system so

as to achieve its laudable goals. NDML is a fully owned subsidiary of National Securities Depository Limited (NSDL). NSDL was set-up in 1996 as the Securities Depository under the Depository Act and is registered with Securities and Exchange Board of India (SEBI). NSDL pioneered the DEMAT revolution in India, making the securities market more efficient and secure.

THE CONSORTIUM FOR EDUCATIONAL COMMUNICATION (CEC)

University Grant Commission set up 'The Consortium for Educational Communication' popularly known as CEC. It has been established with the goal of addressing the needs of Higher Education through the use of powerful medium of television along with the appropriate use of emerging information and communication technology. Online material for undergraduate classes is available through CEC.

KNOW YOUR COLLEGE (KYC)

The Ministry of Human Resource Development (MHRD) launched a 'Know Your College' portal in November 2014. It is a portal that helps students and their parents to explore the educational institutions in the country. All the relevant information of the college like lab facility, faculty, intake, hostel facility, library etc are available on one click. It is very helpful in searching the colleges from their native places.

VISAKA: VITTIYA SAKSHARATA ABHIYAN

VISAKA is a scheme launched by MHRD for digitalisation of money transaction in Higher Education Institutions. The purpose of the Vittiya Saksharata Abhiyan is to actively engage the youth /students of Higher Education Institutions to encourage and motivate all payers and payees to use a digitally enabled cashless economic system for transfers of funds. Ministry of Human Resource Development views the institutions of higher education in the country, faculty members and students to take the lead and act as engines of this transformational shift. It is a responsibility given by Government of India to Educated society for spreading digitalisation of money transaction.

For the last two decades the higher education has positively leaped in almost every direction to meet the global challenges and ever increasing demands. MHRD has taken various remarkable initiatives which are worth fully mentioning in this paper. This shows that the future belongs to India-one of the largest vibrant Higher Education systems in the world which is being transformed through digitalisation and is creating new ways of learning.

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