Chapter 4
India

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Introduction

This chapter analyses the status and prospects of distance education (DE) in India. The analysis focuses on the developments so far, the direction for online and blended learning, and what careful changes are required for DE in Indian higher education and government policies. We also consider if currently unfolding scenarios will be sustainable. We include our individual experiences as well as official data and research evidence.

The National Higher Education System in India

India is a multi-cultural, plural country with the second largest population and the third largest higher education system in the world after the United States and China (Jayaram, 2007). In ancient times, it had world's largest educational system. It inherited the English education system during the British rule and, after colonial independence in 1947, embarked upon educational expansion through its Five-Year Plans. Currently, India has three types of higher education institutions: universities, colleges and stand-alone institutions. Universities can award degrees. Colleges cannot award degrees in their own name and are affiliated or recognized with universities. Stand-alone institutions offer diplomas in technical, management, nursing and teacher training programs. The expansion of higher education in the post-independence period

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has been tremendous. In 1951 there were 30 universities and 7000 colleges (University Grants Commission (UGC), 2013). Currently, in 2018 there are 903 universities, 39,050 colleges and 10,011 stand-alone institutions, serving 36.6 million students (Ministry of Human Resource Development (MHRD), 2018, p. 1). Even in recent years, the growth has been notable. In 2012 there were 700 universities and six years later, there are over 900 universities.

There are six categories of universities and university-level institutions in India: central universities, state public universities, deemed universities, state private universities, institutes of national importance and institutes under the state act. Central universities have been established by the national government of India, while state universities are run and funded by state governments. "Deemed" universities have autonomy from the governments but are public institutions. Private universities are approved by the University Grants Commission. Institutes of national importance include premier higher education institutions focusing mainly, though not exclusively, on engineering, information technology, medicine, and other sciences. Institutes under the State Act for instance are medical science institutes established by the State Legislature Act. There are 15 open universities (OUs) dedicated to distance education, one of which, the Indira Gandhi National Open University is a central university and the other 14 are state universities. Open and distance learning (ODL) is also offered at conventional (dual-mode) universities as well as by stand-alone ODL institutions like the OUs.

History and Status of Distance and Online Education

After independence in 1947, India had to face the challenge of providing access to higher education to cover growing number of youth and disadvantaged sections of society. The working population also felt an increasing need for continuing professional development. However, there were limits on expanding the formal system due to paucity of funds. The Third Five Year Plan (1961–67) of the Government of India (Government of India (GoI), 1961) emphasized the expansion of physical and other teaching facilities to match increased demand with increasing student enrolments. The plan recommended considering evening colleges and correspondence courses, and awarding external degrees.

Subsequently, a senior team from the University Grants Commission (UGC) visited the Soviet Union to study their system of correspondence education and evening classes. In 1961, the Central Advisory Board of Education (the highest government educational policy-making body) recommended establishment of a committee under the chairmanship of the UGC to examine the matter. The committee's report of 1963 recommended the following:

> A correspondence course should be a step designed to expand and equalize educational opportunity, as it aimed at providing additional opportunities for several thousand students who wished to continue their education and the persons who had been denied these facilities and were in full-time employment or were for other reasons prevented from availing themselves of the facilities at college. (Government of India (GoI), 1963, pp. 3–4)

Correspondence education at the undergraduate level was initiated in 1962 at the premier University of Delhi with 1112 arts students on an experimental basis (Panda, 2005). The comprehensive Kothari Education Commission of 1964–66 strongly recommended part-time and own-time (or self-study) education through programs such as evening colleges and correspondence courses respectively. Since then, the system of continuing education (CE) has expanded, with premier universities establishing directorates or departments of correspondence education.

With pressure from international developments in lifelong learning (Panda, 2011) and internal pressure and efforts by educational leaders, the first (provincial) open university was established in India in 1982, in the erstwhile state of unified Andhra Pradesh. It is now called the Dr. B. R. Ambedkar Open University. The Indira Gandhi National Open University (IGNOU) was mandated in 1985 by an Act of Parliament. Along with the national open university, there are now 14 state funded provincial open universities, with the latest one established in 2015 in the state of Odisha:

- Dr. B. R. Ambedkar Open University—1982
- Nalanda Open University—1987
- Vardhaman Mahaveer Open University—1987
- Yashwantrao Chavan Maharashtra Open University—1989
- Madhya Pradesh Bhoj Open University—1991
- Dr. Babasaheb Ambedkar Open University—1994
- Karnataka State Open University—1996
- Netaji Subhas Open University—1997
- Uttar Pradesh Rajarshi Tandon Open University—1999
- Tamil Nadu Open University—2002
- Uttarakhand Open University—2005
- Pandit Sundarlal Sharma Open University—2005
- Krishna Kanta Handiqui State Open University—2006
- Odisha State Open University—2015.

IGNOU was assigned the dual responsibility of being an open university and acting as a national nodal agency (in a way, as a regulator) to promote, coordinate and accredit distance education systems and programs in the country. The DE system expanded quickly 1985 after (Table 4.1).

Dual mode DE is offered by central universities, state universities, deemed universities, state private universities and institutions of national importance. Stand-alone institutions offering ODL include professional associations, government institutions, private institutions. Dual-mode universities programs were required to follow the same syllabus and exams of the parent university to maintain parity with the parent university, except that the delivery mode was different. In many cases such institutes were milch cows for the main university. The establishment of single-mode

Table 4.1 Growth of ODL institutions

Year	Conventional universities	Correspondence institutes at conventional universities	Open universities	Total institutions offering DE
1962–63	61	1		1
1967–68	80	3	–	3
1975–76	115	22	–	22
1982–83	134	34	1	35
1985–86	151	38	2	40
1990–91	190	46	5	51
2000–01	256	70	9	79
2004–05	343	104	11	117
2009–10	532	183	14	250
2013–14	666	198	14	264

Source Quoted from Indira Gandhi National Open University (IGNOU) (2016)

open universities, especially IGNOU, brought about significant reforms, including the following:

- Pressuring and guiding dual-mode institutions to improve quality in terms of curriculum, self-learning materials, use of ICT, learner support, and assessment and evaluation;
- Initiating new national and regional development programs and continuing professional development/training programs in open universities;
- Initiating reforms in curriculum and instructional design with credit-based and modular courses, integration of ICT in teaching and learning, extended networks of tutors and course writer academics, and learner-based student support services;
- Developing and digitizing of a vast amount of learning resources (print, audio, video, interactive multimedia, teleconferencing, PowerPoint, etc.) (Panda, 1999) through a national resource repository, today known as OER—open educational resources;
- Providing a network of facilities such as teleconferencing centers, satellite studios, well-trained educational media professionals, and a national satellite dedicated to education and training;
- Enabling accreditation and quality assurance mechanisms in the DE system and programs through the statutory Distance Education Council (DEC) of IGNOU.

Combining OUs and dual-mode institutions, enrollments in ODL have been growing substantially (Table 4.2). Government of India data from the Eleventh five-year plan (2007–2012) stated there were 1.77 million ODL student enrollments in open universities and 2.42 ODL student enrollments outside of OUs. This calculates to just over 4.2 million ODL students, which is 16.1% of the total of 25.99 million higher

Table 4.2 ODL enrollment growth

Year	Enrolment in conventional universities	Enrolment in open universities	Enrolment in ODL other than OUs
1967–68	1,370,261	–	8577
1975–76	2,426,109	–	64,210
1982–83	3,133,093	–	197,555
1985–86	3,605,029	17,009	355,090
1990–91	4,924,868	102,820	592,814
2000–01	8,399,443	623,892	1,378,000
2004–05	11,038,543	886,612	2,124,591
2009–10	17,243,352	1,630,392	2,140,000
2011–12	25,990,000	1,777,000	2,424,000

Source DEC Databases as quoted from Indira Gandhi National Open University (IGNOU) (2016), *New Education Policy 2015*: *Outcome Document*). n.a. = not available; Government of India (GOI) (2013)

education student enrollments. For the twelfth five-year plan, (2012–2017) the governments' goal was to increase ODL to 5.2 million students out of a total of 35.9 million higher education students, by 2017. Historically ODL enrollments outside of OUs have been a larger percentage of OL students than within OUs. However, enrollments within open universities seem to be growing at a faster rate than ODL outside of OUs.

ICT and Distance Education

With the initiation of correspondence education in 1962, radio (and, later on, audio) enabled provision of supplementary learning resources to the students. Television was added only after the 1975 Satellite Instructional Television Experiment (SITE) in agricultural and community education, along with Farm Radio. In 1984 the UGC started the 'Countrywide Classroom' television and video series. It was produced by means of a network of university media centers and broadcast through the government national television network *Doordarshan*. Distance education received a boost in 2005 with the launch of a dedicated satellite for education (EduSat), with the aim of expanding 'dialogue and interaction'. The use of ICT in the sub-continent has kept pace with global trends, including their application to education and training. However, the school sector has experimented with and deployed technology developments faster and more widely than the higher education sector (Chaudhary & Panda, 2005).

Three types of distance and online learning delivery systems are available in India:

(i) Traditional distance learning delivery, using print materials (self-learning), with learner support provided by part-time study centers;
(ii) Multimedia courseware, with learner support provided by both study centers and online;
(iii) Fully online delivery of programs—learning resources, activities and assignments, synchronous and asynchronous interaction, online support, and online assessment.

Single-mode OUs and only a few dual-mode university "Distance Education Institutes" (also called distance education units) have been able to develop multimedia-based instructional design models. IGNOU has developed a model of credit-based instructional design whereby each component of teaching and learning (including ICT) forms part of the credit system, in a modular learning design. This framework was adopted by provincial open universities and the majority of dual-mode universities, through the Distance Education Council (DEC). The DEC had the mandate to provide government funding to distance education institutions, and required inclusion of ICT in instructional design as a pre-condition to funding.

IGNOU offered many online programs through largely the Moodle learning management system. As many as 42 academic programs were till recently offered online. In the process of technology design and deployment for teaching and learning, IGNOU embarked upon the contemporary version of 'blended learning', in combination with OERs. The best example is the award-winning postgraduate diploma in e-learning (Panda, 2013). The instructional strategy combines independent study, lectures, discussions, group work, collaborative learning, role play and a project (Mythili, 2015).

The expansion of online learning clearly requires a concomitant expansion of broadband connectivity. Internet penetration in India was at 27% of the total population as of 2016, with 335 million internet users. Further, 4G broadband connectivity for mobile phone services is expanding fast, and the number of users was expected to grow to 72% of the population by 2016. A survey by the *Times of India* newspaper in 2012 (Ahmed & Garg, 2015) showed that internet access at that time was 90% from computers, 48% from mobile phones and 11% from tablets. The worldwide market for e-learning is set to grow to $51 billion by 2016, with a 5-year compound annual growth rate of 7.6% (for India the growth rate is estimated to be 17.4%).

Many e-learning companies have created a complete package including an online learning platform, learning resources, interaction and assessment mechanisms. Many colleges, universities and particularly secondary schools, have adopted such a package in order to offer exclusive online programs, or to provide supplementary academic support to students. Simultaneously, we have seen the entry of international free-of-cost, open content providers such as the Khan Academy, EdX and Coursera, which have ambitious plans to tap into the Indian e-learning and e-training markets. However, e-learning is not growing as fast as the e-commerce sector in the country. One reason for this could be the traditional cultural mindset of the population which

prefers individual and book/lecture-based learning, and also their lack of faith in network-based knowledge sharing (Santosh & Panda, 2016).

Formulating a national policy on ICT in education has been difficult and there is still no national policy exclusively for the use of ICT in higher education. The National Policy on Information Technology (NPIT) was adopted by the Indian Government in 2001. It aimed to decentralize, empower, and develop skilled human resources for the IT sector. The National Policy on Information and Communication Technology in School Education (NPICTSE) was formulated in 2012. This was the culmination of many earlier ICT developments in the school sector including the CLASS project (computers in schools in 1984), interactive multimedia on hardspots for school education under the Sarva Shiksha Abiyan/Education For All movement, and mobile learning in schools with subsidized *Aakash* tablet computers (supposedly the cheapest tablet in the world).

In parallel, there have been developments in technologies and networks in India, which have eventually come to support distance and online learning (Commonwealth of Learning (COL), 2015):

- In 1996 The INFLIBNET (information and library network center) was established to network all libraries in higher education.
- Community-based multipurpose tele-learning centers were established (Panda & Chaudhary, 2001).
- In 2005 the National Knowledge Network was established to provide high-speed broadband connectivity to all education and training institutions, free of cost.
- In 2006, the National Electronic Knowledge Repository (*E-Gyankosh*) of IGNOU was established and was put into the open domain in 2008.
- The National Mission on Education through ICT offered free, interactive curriculum-based digital content on the open source portal *Sakshat* (now based at SWAYAM).
- The National E-Library provides quality, free digital content from premier higher education institutions.
- The National Repository of Open Educational Resources (NROER) for school education was established by the National Council for Educational Research and Training.
- The *E-PG-Pathsala* (electronic classroom) program of the UGC funds institutions of higher learning to develop digital e-content (to finally be housed at the national platform of SWAYAM).
- 'Digital India' was launched—this is the flagship initiative of the present National Democratic Alliance government to make the entire country digitally literate and empowered.
- The Indian Government launched SWAYAM—the Study Webs of Active-Learning for Young Aspiring Minds, which is an online MOOC-based national portal for free, credit-based content delivery (quoted in Business Standard, 2017a).

Funding of Distance Education

The funding of higher education institutions in the country are diverse and difficult. The central universities and institutions of national importance are fully funded by the central government, mainly through the UGC. IGNOU is directly, though not fully, funded by the central government, and does not fall under the UGC for direct funding or for regulation/accreditation (though its regulation and accreditation by UGC through DEB is a recent development). State universities, including state open universities, are funded by state governments (with developmental grants from the UGC, if eligible). The deemed-to-be universities are variously funded (but generally by private initiatives). Private universities and colleges fund their own expenses. The dual-mode university DEIs are funded by the parent university.

Education is in the concurrent imperatives of the Indian Constitution, so both central and state governments have stakes and need to fund education, including higher education. In 1995–96, the share of central government in plan and non-planned expenditures on higher education was 51.51 and 11.46% respectively. Planned expenditures are activity-based, therefore variable, while non-planned expenditures are assured and fixed for given activities. Within the total education expenditure, the share of higher education plan was 6% and non-plan 11.5% (10% in total for higher education). Within non-plan expenditure, the highest proportion (i.e. 94.5%) was in the school sector, and only 76% was allocated to higher education (the rest—24%—was divided equally between endowments and fee incomes).

The liberalization of economy in the 1990s, and subsequent encouragement to privatize higher education, helped increase the percentage of the fee income component within the total expenditure figure. However, government expenditure on higher education has stabilized at about 75%, while the fee share has decreased and stabilized at about 12%. Within institutional expenditure, more than 95% is allocated to salaries for faculty and other staff, and the meager rest is available for maintenance and further development.

Open universities have, by and large, achieved economies of scale while maintaining quality. Dual-mode university DEIs spend comparatively less on DE students and in fact earn a surplus at times, which funds the parent university departments. State OUs and dual-mode university DEIs are part-funded by the central government through the Distance Education Council (located at UGC as a bureau).

State open universities are autonomous regarding decision making about program offerings and innovations in teaching and learning. They initially used learning materials from IGNOU, and subsequently developed their own self-learning materials in regional languages. These open universities gain income from four sources: grants from state government, developmental grants from central government/UGC, private grants, and student fees. For instance, the Dr. B. R. Ambedkar Open University (BRAOU), which was awarded full subsidy from the state government when it was established in 1982, now generates resources from student fees (25%), state government grants (22%), and the rest of its resources are central grants from the DEC/IGNOU. It was difficult for this first open university in the country

to be economically viable, since it was spending almost 20% more on students than the resources it generated. On the other hand, as per its mandate and agreement, the Yashwantrao Chavan Maharashtra Open University (YCMOU) received a block grant each year from the state government to meet developmental costs, and was required to meet operational costs itself. As per that agreement, the YCMOU is now able to meet cent percent of its recurring expenses (after five years of existence).

An earlier study by Datt and Gaba (2006) reports that the sources of income for open universities are still mainly based on student fees:

- Yashwantrao Chavan Maharashtra Open University: student fees (90.11%), state government (7.33%), DEC/IGNOU (2.56%). (Fees as % of unit cost: 103.19).
- Dr B. R. Ambedkar Open University: student fees (82.23%), state government (17.77%). (Fees as % of unit cost: 82.23).
- Uttar Pradesh Rajarshi Tandon Open University: student fees (71.43%), state government (22.86%), DEC/IGNOU (5.71%). (Fees as % of unit cost: 123.27).
- Indira Gandhi National Open University: student fees (71.31%), central government (28.69%). (Fees as % of unit cost: 71.32).

The above data shows that some open universities charge more fees per student than their expenditure per unit. This may mean that there is a compromise in terms of quality of teaching and learning, and student learning experiences. Data from private universities and private distance education providers are not available to draw conclusions in that sector. However, personal experience of the authors shows that, barring a few who are conscious of overall quality of their provision, most private providers aim at making a profit. They either strictly economize on infrastructure and recurring expenses, or on the quality of education, or they charge higher student fees, or all of these.

While the regulator DEC was part of IGNOU, the national open university channeled grants to other DE providers and also regulated/accredited them. Although the government shifted the DEC to come under the control of UGC in 2013, IGNOU has not sacrificed its autonomy in terms of direct central funding. In 1985–86, IGNOU received full subsidy from the central government. In the following year, student fees constituted 1.86% of its income. Today student fees contribute about 75% of income, and the government contribution is 15%. Income from other sources has increased, such as the sale of publications, interest on bank deposits, and endowments.

The funding of higher education and DE in India is not based on any particular policy. Kulandai Swamy (2002) had remarked:

> Either at the time of establishing the IGNOU or later, the Government of India has not articulated a unique funding policy for the open university as such, distinct from the policy followed in funding of conventional universities. Generally, the analysis of costs and benefits of university education has not been attempted … It is only in recent years that economics of higher education has come to be discussed and the universities are asked to generate funds. (p. 64)

A cost analysis and funding mechanism should be undertaken for both public and private DE providers. Either the central government or the DEB should develop a uniform funding system for all DE providers. This will facilitate decisions regarding

the costs of online learning programs, student fees, and sources of funding. A successful resolution to the funding issue will determine the future expansion of online learning too.

Regulation, Accreditation and Quality Assurance

When IGNOU was established in 1985, the correspondence education programs in dual-mode universities were partly funded and quality assured by UGC. A conference of vice-chancellors was organized by UGC in 1990 to discuss the future and regulation of correspondence/distance education. As a result, UGC and IGNOU agreed to establish the Distance Education Council (DEC) at IGNOU as per the IGNOU Act. They decided that while IGNOU should manage the DE system (i.e. open universities), UGC would continue to control continuing education (CE) programs in the dual-mode universities and deemed universities. The DEC exercised three roles—promotional activities, coordination and maintenance of standards, and financial support.

In 1995, DEC started recognizing DE programs offered by dual-mode public universities, although online programs were not conceived within this regulation framework. Guidelines were developed for establishing DE institutions, together with their functioning regarding offering academic programs. However, since the DEC was not created by means of an Act of Parliament, it did not have legally tenable Regulations, Norms and Standards for various programs. Therefore, it began as an advisory body, providing only guidelines. Subsequently, in 2003 DEC embarked on program evaluations for formal recognition, and five years thereafter it started offering provisional institutional recognition through a coordination committee comprising nominees from UGC, AICTE and DEC. However, the chairperson of DEC was always the chairman of the joint committee.

Statute 28 of the IGNOU Act (dealing with DEC at IGNOU) was repealed by the President of India (i.e. the Visitor of the University). In 2013 DEC was placed under UGC as its Distance Education Bureau (DEB). Since then, DEB has been allowing annual and 2–5 yearly recognition of programs of all DE providers including IGNOU, and has of late formulated regulations separately for DE and online learning which have been implemented.

Territorial jurisdiction has been a matter of contention regarding DE institutions vis-à-vis campus-based universities. Due to government laws, campus-based dual-mode universities were restricted to offer DE programs within their university jurisdictional operation in a particular state, whereas state OUs had the mandate to cover the entire state. IGNOU was mandated to cover the entire country and offer programs overseas. The central universities (which are usually unitary in nature without any affiliated colleges) could accept DE students from any part of the country. These issues are now under consideration, as clear-cut policy for cross-border education begins to evolve.

Issues, Concerns and the Future

India has the largest higher education demographic globally. The gross enrollment ratio—the number of students in higher education from the possible pool from the population—was 8.1% in 2001–02 (9.3% male, 6.7% female), increasing to 21.1% in 2012–13 (22.3% male, 19.8% female). The gross enrollment ratio was 26% in 2017, with over 35 million higher education students. It is expected to be 30% by 2020. This is putting pressure on the system to expand faster than ever before. There is a need to strengthen alternative routes such as distance and online learning to provide access to education and especially skills training.

Private initiatives in education and low-cost DE, coupled with stringent quality monitoring, could address the need for more education and training opportunities, especially as public expenditure on education is not commensurate with educational need. Information and Communication Technologies (ICTs) can play a major role in expanding opportunities and provision. The Indian education sector is a lucrative market for investment. Private providers of higher education include both private institutions in India and foreign providers. Foreign direct investment in education, which was about 8.8 million rupees ($135,000 USD) in 2002–03, increased to 10 billion rupees (153 million USD) in 2008–09. But it got reduced to 1.5 billion rupees (23 million USD) in 2011–12. The number of private higher education institutions has grown phenomenally in recent decades, following the post-1990s liberalization of the Indian economy (FICCI, 2011). This is certainly going to increase in future. Though 100% foreign direct investment in education is allowed through the automatic route, private universities and colleges generally focus on professional programs with no overseas elite university actually establishing any campus in India so far (Ahmed & Garg, 2015).

Cross-border education continues to be a major challenge in terms of policy and practice. It is not healthy to allow the current 'brain drain' phenomenon to continue. The best talent in the country has been migrating to developed countries for higher study and eventually gaining employment abroad. Retaining talent in-country is a major concern.

In this context, Garg (2015) summarized the status of distance and open education in India as follows:

> … the Open Universities (OUs) are now facing Herculean challenges, which have emanated from non-recognition of their degrees for higher education and non-acceptability of graduates in the job market, low success rates/retention and high dropout rate, the demands of lifelong learning (L-3), ignorance of the purists among the intelligentsia about techniques and processes and methodologies used by open educators, rapid changes taking place within the system and criticism by different regulators. (p. 6)

The DE system is operating without a well-formulated separate national DE policy. Additional challenges that the DE system has to deal with include a government culture that is non-responsive, bureaucratic and politically active. Moreover, the under-performance that is plaguing the mainstream education system is crippling creativity and affecting quality. The ODL system is now a prisoner to this tendency.

These challenges, coupled with instability in the placement of the regulator of distance education in the national educational policy landscape, are poised to affect the future of distance and open learning.

The use of ICT continues to be a problematic area. Learning technologies are not an integral part of the pedagogic and delivery systems in either open and dual-mode universities, nor conventional institutions. Early during the development of OUs, the use of technology was significant (though supplementary) and seriously implemented, particularly since the institutions controlled the ICT-basket—print, audio, video, radio, TV, multimedia, and (tele) conferencing media. However, impediments in integrating ICTs into ODL have been created in the light of recent developments such as the semantic web, OERs, MOOCs and open source technologies. Even after 57 years of initiation of correspondence/distance education, ICT still remains as supplementary within programme design and delivery. The impediments include lack of both national and institutional policies and frameworks, academic resistance to rapid change, and high costs and resource crunch. Further, the absence of a 'system' of technology-enabled ODL inhibits distance and online learners in their individual and group learning.

ICT challenges for ODL need to be addressed in a systematic manner. This would entail:

- appropriate technology deployment, practically accessible and usable by the students;
- significant training and professional development of faculty on pedagogical integration of ICTs (Markauskaite & Goodyear, 2009);
- strategic policy and organizational realignment including policy for plural and blended pedagogic and ODL models (Arinto, 2016);
- removing barriers to effective use of ICTs in teaching and learning, and learner support;
- cost-effectiveness analysis and adoption of appropriate and economically viable strategies for program development and delivery.

Any large-scale adoption of e-learning needs to be embedded in national and institutional policy frameworks. In a study on the National Open University, Panda and Mishra (2007) reported significant barriers to e-learning as perceived by faculty, namely: access to technology and training on e-learning, institutional policy, and instructional design for e-learning. Santosh and Panda (2016) reported faculty preference for colleagues and publishing, rather than sharing in social and professional networks (and the absence of organizational recognition and incentives). This is notwithstanding the fact that a study of learner preferences suggested a preference for web-based learning, supported by print and some form of online and/or face-to-face interaction; and such an offering could be further facilitated by email and interactive multimedia support (Dikshit, Gaba, Bhushan, Garg, & Panda, 2003). In terms of pedagogic effectiveness, interactive multimedia CD-ROMs with a variety of learning activities were found to be more effective than print with face-to-face learner support and/or web-based learning with online learner support (Dikshit et al., 2013). A recent study (Panda & Santosh, 2017) underlined faculty preference for open

sharing, institutional policy on OER, and continuing professional development in copyright, IPR and OER. All these issues need to be addressed early.

For a long time, there had been lack of a national credit policy in higher education, although IGNOU and other open and dual-mode universities adopted a standardized system of credits in the form of modular-based learning. The credit-based system of education and training propelled the development of national Choice-Based Credit System (CBCS) by the University Grants Commission for both campus-based and open universities and colleges in 2015. Now, all the universities are required to re-engineer their practices and shift to these national standards, although the details are still being refined. The credits system becomes complicated while considering the national online platform (SWAYAM). While universities are being encouraged to develop and use interactive, credit-based multimedia courseware for the SWAYAM platform at no charge to students, it is not clear how universities (especially open universities) will award credit for online diploma and degree programs, both within and outside the country vis-a-vis the national online platform. The existing pedagogic comprehensiveness and effectiveness of SWAYAM are being questioned when compared to some of the current good practices globally.

Both systemic and disciplinary research has long been a weak link in DE in India. In the initial years of correspondence DE, research was not a priority for academic administrators. Individuals however continued to publish research, but a research policy was only put in place in most OUs around 2000. In single mode OUs, qualifications in DE as well as publications in DE theory and practice are now held in high esteem in terms of faculty recruitment and promotion. However, DE faculty in dual-mode universities had to comply with policies meant for the parent university. Though many faculty members conducted research in their subject discipline, this was rare for DE policy and practice.

As mentioned earlier, UGC is the regulator for higher education, including research programs and policies. Its policies about DE and research in open universities have been fluid and indecisive. As a result, OUs and dual-mode universities began to deviate from rules and regulations intended for campus-based universities (including compulsory full-time credit-based coursework). For example, in 2008 IGNOU established 100 doctoral fellowship programs in all disciplines, including distance education. More than 400 full-time doctoral students pursued research in various disciplines. Then in 2009 UGC issued a notification banning M.Phil. and Ph.D. programs via distance learning. The embargo resulted in a cessation of doctoral work through distance and online learning. This is bound to affect the quality of online and DE over time, as it will become increasingly difficult to attract and retain talent. It was ironic that campus-based universities may pursue full-time doctoral work on any area of DE, yet those who have day-to-day systemic experience in distance teaching and learning are banned from conducting research in this area. This got resolved in 2017, and doctoral research at OUs and DEIs was allowed again in these institutions.

UGC continues to view DE as lacking in quality, more so in case of online learning. Even if distance education captures a sizeable proportion of higher education space, questions relating to parity of esteem and employability are still raised by

higher education administrators, the judiciary and employers. In this context, leadership within DE matters. This notwithstanding, it is unfortunate that, in spite of strict guidelines being issued in 2015 regarding adherence to quality standards and scrutiny, online learning programs (at certificate, diploma and degree level) had been banned in the country as an interim measure. Since then, universities, including national and state open universities, have been constrained by not being allowed to offer academic programs online (though now the online learning regulation 2018 by UGC is under implementation). The National Education Policy 2016 (Ministry of Human Resource Development (MHRD), 2016) has been formulated, but is under national and regional consultation. It has proposed: the creation of a national agency as the regulator in the area of ODL; allowing IGNOU to offer online programs in areas including select professional areas; provided the guidelines on standards promulgated by various higher education regulators; (in fields of agriculture, law, teacher education, etc.) are adhered to; establishing and operating internal quality assurance cell by IGNOU; and carrying out an independent external evaluation of IGNOU. The Government of India is expected to pilot the Distance Education Council of India (DECI) Bill through the Indian Parliament to establish the DECI (distance education council of India) as an independent statutory regulator with sufficient mandate to impose, monitor, recognize and accredit all distance education programs (including online learning programs) in the country.

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