

e-Governance in Higher Education: A Case Study of IGNOU, New Delhi

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Abstract— In the year 2015, IGNOU will complete three decades of its successful existence in providing higher education in India to students for whom education was a distant dream because of lack of resources such as nearby colleges/ universities, high cost of higher education, unavailability of books and resources, unavailability of teachers and so on. To achieve this commendable feat, over the years IGNOU has evolved its administrative and governance systems. This university is the best example of distance education in South Asia region. It is in fact the largest Open University in the world currently enrolling more than 4 million students in 43 countries offering 490 certificate, diploma, degree and doctoral programmes, with a strength of nearly 420 faculty members and academic staff at the headquarters and regional centres. This case study presents the e-governance systems already in use at IGNOU for delivering various student support services online. IGNOU not only offers many services to students online but also uses many software applications for increasing the efficiency of Open and Distance Learning (ODL) system. Some systems are worth mentioning such as Online admission form submission, online examination form submission, online admission/ registration/ assignment for partner Institutions, online student grievance redressal handling and response, Web-enabled Student Registration & Records Management System, ODL soft, NODLINET/e-resources, IGNOU Wiki, ERP system for administration of staff and so on. This paper traces the adoption and improvement brought about by e-governance in IGNOU over the last 27 years. Methodology used has been a combination of interviews with Faculty and Staff members of Computer division (CD), Student Registration Division (SRD), Student Evaluation Division (SED), Regional Service division (RSD), Staff Training and research Institute of distance education (STRIDE), Student Service Centre (SSC), Planning and development division (P&DD), Academic coordination division (ACD) and Finance Division (F&D) of IGNOU and going through several published papers and books on IGNOU model of education. Further, the emphasis of the study is to find what other areas can be brought under the e-governance system in higher education institutes (HEIs).

Index Terms— ODL, e-Governance, Distance Learning, Higher Education, HEIs, Open University, IGNOU

1 INTRODUCTION

The term “e-Governance” has been defined in many ways by different practitioners, researchers and academicians.

There is no standard definition of the term “e-Governance”, it has been defined to suit the needs of various stakeholders. Another term “e-Government” is interchangeably used for “e-Governance”. We will look at some definitions that are widely accepted:

The definition provided by the World Bank (IRBD) is “E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government” (The World Bank Definition). E-government is the most frequently cited term in comparison to e-governance, online government, one-stop government and digital overnment (Andersen and Henriksen 2006). Riley (2003) refers to 'government' as a superstructure that deals with decisions, rules, implementation and outputs of its policies; whereas 'governance' refers to functioning based on processes, goals, performance, coordination and outcomes. UNESCO defines e-Governance as: “Governance refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizens' articulation of their interests and exercise of their legal rights and obligations. E-Governance may be understood as the performance of this governance via the electronic medium in order to facilitate an

efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities.” In the Indian context, former President of India, Dr. A P J Abul Kalam defined e-Governance as “A transparent smart e-Governance with seamless access, secure and authentic flow of information crossing the interdepartmental barrier and providing a fair and unbiased service to the citizen.”

Broadly e-governance systems can be implemented at three levels:

Level 1: Electronic Access - Collection and access to government/institution information -it entails that the citizens will be provided with a single place to access all information about government's plans, programmes, projects, policies and legislation.

Level 2: One way electronic services- submission online or access to a service is electronic or online whereas it is processed and service is delivered offline or through physical mode. One such example is Voter ID card.

Level 3: Fully interactive two way transactions or online services - At this level, e-governance refers to the use of information and communication technology to effectively carry out government administration such as delivering government

services, monitoring schemes, citizen participation in policy making.

2 E-GOVERNANCE IN INDIA

2.1 The Beginning

After the liberalization of Indian economy in the early nine-ties', computerization started growing aggressively with several MNCs opening their offices in India. A number of legislative measures by the union and state governments in the subsequent years prepared the ground for e-governance in India. During the latter half of same decade a National Action Plan for Effective and Responsive Government was adopted at the Conference of Chief Ministers held on 24th May 1997 in New Delhi which was later rechristened as National e-Governance Action Plan (NEGAP) and finally in May 2006 was passed by Union Cabinet as NeGP (National e-Governance Plan). The plan aims at making administration accountable and citizen-friendly, ensuring transparency providing public services to the common man in his locality at affordable costs through electronic means.

2.2 Definition

Hence, in general, e-governance can be defined as an ICT based system that enables all the levels of interactions between stakeholders through electronic mode. Main features of such a system are: access to all stakeholders, transparency, accountability, easy usability, user friendliness, responsive, Robustness, reliability and efficiency.

e-Governance by its inherent nature provides great benefits such as increase in efficiency, increase in transparency, reduction in corrupt practices, increased user satisfaction levels and reduced cost of providing services.

3 HISTORY OF UNIVERSITY EDUCATION SYSTEM: MEDIEVAL AGES

Universities like cathedrals and parliaments are a product of middle ages. As per Haskins, Charles Homer (1) universities as systems of higher education emerged between the fall of Roman Empire and the rise of Italian Renaissance around 1100 A.D. Before the establishment of universities there were "Guilds of Masters" and "Scholars". Socrates was great master and had excellent scholars but not in a set up as which we perceive today as a University. Earliest established universities were the University of Bologna (1088 A.D.) and University of Paris(1096) in Europe. The word "university" was coined by University of Bologna. These were archetypal universities. After few hundred years universities started to do empirical studies such as at University of Oxford (1167 A .D.) to meet

social needs.

University word is derived from the Latin word "Universitas," which means 'specialized associations between students and teachers.'" This Latin word referred to institutions of learning, which granted degrees and diplomas to its students. The present day Universities are no different from the ancient institutions except for the fact that Universities today are much bigger in terms of both the subjects taught and the students and of course the integration of ICT in university teaching, learning and administration.

3.1 Universities in India

In India, "University" means a University established or incorporated by or under a Central Act, a Provincial Act or a State Act and includes any such institution as may, in consultation with the University concerned, be recognized by the University Grants Commission (UGC) in accordance with the regulations made in this regard under this Act. First University in India was established at the Calcutta (present day Kolkata) in 1856. Soon two more modern universities were established at 1857 at Mumbai and Chennai.

In the year 1956, an Act was passed by the parliament of India to standardize University education in India. This Act was "The University Grants Commission Act, 1956." UGC Act provides for the co-ordination and determination of standards in Universities. UGC has several bodies such as NAAC, AIU and so on that govern and ensure the quality standards of higher education system in India.

In India, the union Ministry of Human Resource Development (www.mhrd.gov.in) has the overall responsibility of educational policy. There exists a separate Department of Higher Education within MHRD to devise national policy on Higher Education (HE). This department has several independent bodies to co-ordinate; standardize various fields of higher education. Most important of them are:

- University Grants Commission(UGC)
 - National Assessment and Accreditation Council (NAAC), 1994
- Association of Indian universities(AIU)
- Technical Education
 - All India Council for Technical Education (AICTE), 1945
 - Council of Architecture (COA)
 - National Board of Accreditation (NBA)
- Distance Education
 - IGNOU

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- State Open Universities
- Commonwealth of Learning(COL)

In the last 150 years India has made a remarkable progress in terms of increasing its institutional capacity for higher education, specially post-independence, from 27 universities in 1950 today India has 500+ Universities (42 Central universities, 243 State universities, 53 State Private universities, 130 Deemed universities, 33 Institutions of National Importance (established under Acts of Parliament) and five Institutions (established under various State legislations) and about 34,000 colleges including professional colleges. In terms of no. of HEIs, India ranks first in the world and in terms of number of institutions in terms of student enrolments, India is second only to China. These figures are as per the reports published by Ministry of Human Resources Development, Government of India (2011).

4 OPEN UNIVERSITIES AND DISTANCE LEARNING IN INDIA

As University education became more popular, concept of distance education and open learning emerged. As per (Foks, Jack, 1990, Commonwealth of Learning) distance education occurs when interacting learner and teacher are separated by time and/or space.

In the year 1982 the first Open University in India was established at Hyderabad, Andhra Pradesh as Andhra Pradesh Open University (APOU) now rechristened as B R Ambedkar Open University (BROU) whose first Vice Chancellor was the great visionary and educator: Dr. Ram Reddy. Soon in the year 1984 The IGNOU ACT was passed and thus in 1985 was established the soon to be the largest Open University in the world - IGNOU, New Delhi. As on date there are 14 exclusive Open Universities in India. As per MHRD report (2010-11), in all more than 55lakh students are enrolled in various programmes offered through open and distance learning mode (ODL system).

5 THE INDIRA GANDHI NATIONAL OPEN UNIVERSITY (IGNOU)

The IGNOU is the focus of this study. Before going into details, background information on the IGNOU and Indian educational context is important. As on date IGNOU serves the educational aspirations of over 4 million students in India and 43 other countries through 21 Schools of Studies and a network of 67 regional centres, around 3,000 learner support centres and 67 overseas centres. The University offers about 490 certificate, diploma, degree and doctoral programmes, with strength of nearly 420 faculty members and academic staff at the headquarters and regional centres and about 36,000 academic counsellors from conventional institutions of higher

learning, professional organisations, and industry among others.

As per the official web site of IGNOU, the mandate of the University is to:

- Provide access to higher education to all segments of the society;
- Offer high-quality, innovative and need-based programmes at different levels, to all those who require them;
- Reach out to the disadvantaged by offering programmes in all parts of the country at affordable costs; and
- Promote, coordinate and regulate the standards of education offered through open and distance learning in the country.
- To achieve the twin objectives of widening access for all sections of society and providing continual professional development and training to all sectors of the economy, the University uses a variety of media and latest technology in imparting education.

All 67 Regional Centres (RCs) and 21 Schools and Divisions are connected through a Wide Area Network(WAN). Admission can be taken for any programme at any RC except for Ph.D. programmes.

6 E-GOVERNANCE AT IGNOU: ICT FOR LEARNERS AND ICT FOR SUPPORT SERVICES AND ADMINISTRATION

We can look at the concept of e-governance in IGNOU from two angles: first being use of Information and Communication Technology (ICT) systems for students and secondly use of ICT systems for staff and faculty for increasing the efficiency of its administrative system and improving external interfaces and student support services.

6.1 e-Governance Initiatives for the Learners

The IGNOU uses Open Distributed Technology Enhanced Learning (ODTEL) framework to impart courses and programmes to its learners. In last 27 years IGNOU has taken many measures by adopting latest ICTs for imparting quality education to millions of its students across the vast geographical spread of India. IGNOU Has adopted technological tools and systems in a phased manner keeping with the times. Some of the notable e-governance measures taken by IGNOU are listed in the Table 1 that follows:

Table 1

6.2 e-Governance initiatives for the Faculty and Staff at IGNOU

Since the very beginning, most of the administrative activities were computer based. The various kinds of database related to students, faculty, staff were being maintained in silos.

Over the years the phenomenal growth of IGNOU forced the top level administrators at IGNOU to think in a holistic way. This approach resulted in initiating the development and implementation of ERP software at IGNOU in 2007.

ODL Soft: Perhaps the most important milestone that needs to be mentioned here is the development and installation of an Enterprise Resource Management (ERP) system called ODL Soft in 2008. ODL soft is shortened form of Open and Distance Learning Software which is actually implementation of 'PeopleSoft ERP' product by Oracle Corporation. This is versatile software that has 18 modules in all. ODL soft provides 18 different modules which cover the Human Capital Management Solution (HRMS), Financial Management Solutions (FMS), Supply Chain Management (SCM) Solution, Enterprise Performance Management software (EPM).

IGNOU is one of the fore-runner in implementing this modern and versatile technology, in government run educational institution of this dimension, due to which IGNOU has been placed in the World map of ERP implementation in educational university setup. This is as the result of successful completion of ERP implementation in 16 months. Being the first Central Open University to implement ERP, having decentralized account disbursing system was a great challenge. Innovative design of the system has brought together all the human resource and complete accounting activities in single data base. Degrees/Diplomas/Certificates/Grade Cards are also digitized to easily access them for present and future references and validations. All the applications now access a single database and various Schools/Divisions and Units are seamlessly connected to each other.

Table 2

Admission Related processes: Due to complicated file based manual processes IGNOU was not easily accessible to prospective students. Admission process was expensive and cumbersome as applicants had to travel, purchase, fill and submit forms along with relevant documents at different Regional Centers(RCs). In 2008, IGNOU Student Admission Management System was implemented at Student Registration Division (SRD). Now all the functions such as enrolment, dispatch of Study material (by MPDD, IGNOU), payment of fees are done through online software called - IGNOU Student Registration and Record Management System.

Evaluation Related processes: Student Registration Division (SRD) carries out all evaluation related activities which include sending answer sheets to examiners, collating results, creating grade Cards, Diplomas and Degrees. With the help of IGNOU Student Registration and Record Management System, now many of these activities are computer based and both SRD and SED have a common database. Hence any information or record that is updated by one division is visible /assessable to all other divisions in real time, thereby minimizing any errors that were earlier a result of mis-coordination between two or more divisions or oversights.

On-Demand Exams through NCIDE: National Centre for Innovations in Distance Education (NCIDE) was established in December 2005. NCIDE is a specialized division in IGNOU that is constantly striving to find out innovative methods in distance education. It has developed a comprehensive ICT based examination system. Using this system, students can send a request to their programme coordinator for arranging for their exam as per their preparation and convenience on a pre-selected date. This system is completely online from registering online, online generation of question papers(encrypted) to RC level secure downloading of unique question paper and declaration of ODE results. Only manual part is evaluation of answer sheets. This is a first of its kind system in distance education /Open Universities in India.

7 Concluding Remarks

7.1 Benefits of eGovernance at IGNOU

Since 2008, eGovernance practices have been widely adopted by all schools and divisions of IGNOU. Use of ODL Soft has significantly reduced the paper work, automating finance related processes, approvals, procurement, supply chain management, logistics, employee records management, HR, payroll, performance management. On the other hand students are getting quick responses to their queries through email/phone/sms and live counseling. Using ICT systems students find it easy to get the details of counselors, schedules counseling sessions with just a click of the mouse. More and more students are liking the idea of pursuing higher education through ODL system of IGNOU while being gainfully employed. Toay nearly 7lakh enrolments are happening every year since last 3 years, which is a huge number to reckon with.

7.2 Challenges and Future Directions

Inclusive growth is the theme of XII th Five year plan (2013-17). India's Hon'ble Prime Minister's in his address the Planning Commission Meeting on Twelfth Five Year Plan (2012-17) on 15.09.2012 had emphatically expressed "Health, education, and skill development are key sectors which enhance human capability and can contribute hugely to the objective of inclusive growth. They must be given high priority in the Twelfth Plan. These are sectors where additional public resources are needed but there is also need to ensure greater efficiency in delivery through system reforms."

To ensure such an inclusive growth in India, education is one of the most powerful tools. In the years to come IGNOU through its ODL systems will skill a large number of youth for future jobs. Today IGNOU has a large number of learners. Nearly 2000 learners enroll with IGNOU every day. To efficiently provide student support services to such a huge number of learners, adoption of ICTs and e-governance systems is a must. IGNOU is already a leader in using e-governance for its students, faculty and staff.

However still there is scope for improvement in the following areas:

- Web based interactive counseling – it can be facilitated through online chat applications and internet telephony.
- Online assignment submission may be provided so that process is fast.
- Tutor Marked Assignment in digitized form may be made available for students online or through email.
- Online exams for some certificate courses can be introduced.
- Permanent storage of student grades as evidence of progress should be done
- Flexibility in choice of subjects to study for employability as happens in 'Meta Universities'
- Learning online using open courses (such as MIT OCW) that can be reused, revised, remixed, and re-distributed.

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In the latest union budget (Budget Speech, 28th Mar 2013), Central Government has allocated Inclusive growth a budget of Rs 65,000Crore for 2013-14 period. An additional Rs. 1000crore have been allocated for vocational education so as to achieve the target of skilling 10 Lakh youth in next 10 years.

4 CONCLUSION

In conclusion it can be said that IGNOU is doing well in terms of e-governance adoption for its various functions and it needs to allocate more to its ICT budget so that learners and facilitators in its ODL system can seamlessly interact and gain in the process.

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