

E-Learning - The NOS Initiatives

Inter-active Learning
<http://www.nos.org>



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E-Learning – The NOS Initiatives

Abstract

E-learning is the core area in the web-based education system. The very important aspect of e-learning is that it makes the learner independent of place and time both of which are the basic bounding factors for education through traditional method. There are enormous amount of potential in e-learning through web which can be exploited to provide quality and equitable education to learner particularly in the case of open learning and distance education. IT- literacy is no more an option but has become an essential requirement. Our children need to be given IT backbone to stand and compete with rest of the world.

National Open School (NOS) is the largest open school in the world in terms of its annual and cumulative enrolment, programmes and courses offered and geographical areas under its operation. NOS has also ventured into this web-based education by providing greater extent of connectivity to remote places. A number of IT-enabled programmes and courses have been initiated by NOS harnessing the web technology. The two basic features of e-learning are provision of information and inter-active learning. Both are being initiated by NOS as major breakthrough from traditional mode of open learning and distance education through its official web-site <http://www.nos.org>

NOS in an innovative way have established a strong network of over 100 institutions for running all its IT-courses. NOS has also successfully produced the CD-version of all its course materials and made them available to students as priced publications. The course materials have also been placed onto NOS web-site in the interest of the students and educators. In the inter-active learning mode NOS is offering **Certificate in Computer Applications** through Internet. The course has been supported by Internet Access Point and on-line tutorials and assignments. In the area of testing and certification, NOS has made a greater initiative by introducing On-Demand Examination System. The initiatives undertaken by NOS in the field of e-learning is really remarkable and have been proved to be a great step towards IT-literacy programme.

E-Learning – The NOS Initiatives

Introduction

The National Open School (NOS) is the largest Open School in the World. It is largest in terms of enrolment, programmes & courses offered and the geographical areas under its operations. NOS offers Secondary and Sr.secondary courses through open and distance learning mode. It also offers various vocational and life enrichment courses. It operates through strong network of 10 regional centers and more than 1400 study centers spread all over India. It has study center in Middle-east, Nepal and Canada. NOS has ventured into Open Basic and Elementary Education. At the Elementary Education Level and Adult Education sector, it has MOUs with more than 200 agencies that in turn have their centres. During 2001-2002 admission year 2,13,660 students were admitted in the academic and vocational stream making the cumulative enrolment more than 7,25,000. During the year 3,29,136 students appeared in the NOS examinations in April and October 2001, out of which 25% have been certified.

Objective

Open learning/Distance Education is the methodology in which the learner does not go to Educational institution but the education comes to his doorstep. To achieve this objective the technological advancement the world over is tapped by the individual/institution as the success of this system very much depends upon the optimum utilisation of the technology in the field of education and communication. Therefore, Internet and Web technology have proved effective in the teaching and learning process especially in the field of Distance Education. With the help of Internet one has access to information around the world at one's fingertips.

E-learning is the core area in the web-based education system. The very important aspect of e-learning is that it makes the learner independent of place and time both of which are the basic bounding factors for education through traditional method. There are enormous amount of potential in e-learning through web which can be exploited to provide quality and equitable education to learner particularly in the case of open learning and distance education. IT- literacy is no more an option but has become an essential requirement. Our children need to be given IT backbone to stand and compete with rest of the world.

Infrastructure and Computerisation

- The NOS has come a long way in the forefront of IT since it made a small beginning with only two personal computers in 1989. Today it is equipped with latest hardware and software. There is Local Area Network with centralised database system with Windows NT as the basic operating system and Pentium – III based NT Server.
- All the Regional Centres of NOS have been provided with Internet access and e-mail facility for transfer of data and for smooth connectivity with Headquarter in Delhi.

- In order to provide better, fast, accurate and efficient services and support to the students in terms of academic as well as administrative, all major areas of applications were undertaken for computerization.

IT Education in NOS

NOS offers computer education at Secondary and Sr.secondary level. Currently the following courses are being offered:

- **Certificate in Computer Applications**
- **Certificate in Word-Processing MS-Word**
- **Certificate in DTP**
- **Computer Science as a subject at Senior Secondary Level**
- **Computer Technician Programme (a computer hardware course in association with Vigyan Ashram, Pune.)**

The cumulative strength of the students in the above courses is more than 50,000 out of which 25-30% have been certified by NOS. The courses which are being developed and will be introduced shortly are:

- **Elementary Course in Computer Awareness (For OBE students)**
- **Diploma in Computer Applications**
- **Certificate in Computer Hardware & Maintenance**
- **Short Term course in Web-designing**

Methodology and Framework

- NOS in an innovative way has established a network of over 100 institutions, mostly in private sector for running all its IT-courses. These centers work as training centers for NOS and in turn get the benefit of well planned, well structured courses, supported by self instructional study material and audio-video material.
- NOS charges very nominal fees from the students even for all its IT-courses. We charge only Rs.1500/- for one year course which includes charges for practical training, theory classes and cost of study material. The lower fees charged by NOS help the needy and poor students in getting enrolled for these courses of NOS which otherwise is not possible. NOS prefers setting up new centers in rural, tribal and other un-reached areas.
- NOS is in the process of offering these IT-courses in Hindi to help majority of students in the Hindi speaking areas.
- NOS has also successfully produced the CD-version of all its course materials and made them available to students as priced publications. With this the teaching can take place on computer itself. Since in open learning system, there is hardly face-to-face contact of the students with the teacher, these CDs with multi-media

presentations help the distance learner in a great manner. The course materials have also been placed onto NOS web-site in the interest of the students and educators.

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NOS on The Web

Internet and Web technology have proved effective in the teaching and learning process especially in the field of Open and Distance Education. With the help of Internet one has access to information around the world at one's finger tips.



<http://www.nos.org>

The web site is a dynamic source of latest information and is also the electronic information guide of any institution. Anyone can have access to NOS web-site at the following address:

<http://www.nos.org>

Clicking this site address will bring the user to NOS home page. The Home Page provides different menu buttons with hyperlinks to reach the different information pages of NOS. A visitor's counter is also placed on the home page. On an average 2000 hits/day is being recorded making total of more than 450000 hits.

The NOS website is divided into two parts. One the Information part and the other is Services and Interactivity part. Under the Information part we provide the following information:

- About NOS, its activities about admission, examinations, Seminars, workshops and Conferences and their reports and latest happenings.
- Other National and International institutions of Open learning and distance education and hyperlinks to those institutions.

Under the Services and interactivity part we provide the following:

- Question paper and marking schemes of NOS examinations
- Study Materials of NOS
- Results of NOS examinations
- Admit cards/hall tickets to NOS students for the examinations
- Interaction through e-mail

NOS course materials on CD and on the Internet

NOS has successfully produced the CD version of its course materials. With this the NOS course materials is available to students on CD with a price. NOS has also put all its course materials on our website at www.nos.org for reference and interest of the students and educationists.

On-Line Courses

- As a major breakthrough in the utilization of web-based education, NOS is offering **Certificate in Computer Applications (CCA)** through Internet.

- **Submission of Registration Form** : All the details about the registration form and other formalities are given on NOS web site. The student has to fill the registration form on-line and submit it through Internet. Instead of buying the prospectus, the student can simply download the registration form and send it by post along with the necessary documents, photograph and requisite fees to Computer Unit of NOS. We are in the process of developing the examination form, re-checking form and other student required forms on the net to make the distance learning really effective.
- **Internet Access Point** : There might be larger group of students who will be interested in taking advantage of this facility but not in a position to utilise it. For such group of students, we are in the process of providing Internet Access Point. We are selecting some of the CCA study center for this purpose. The selection will be based on the availability of the basic infrastructure needed for the Internet set up.
- **Provision of Password** : Direct Interaction with the students becomes more effective through this technology especially in the case of distance learning. Once the registration of a particular student is done on-line, each individual student account will be provided who will enroll through Internet. Each such student will be given an User Id and Password and a free e-mail account.
- **Tutorials** : There will be a separate section for tutorials on our web site as part of the course itself. In this section, we will be dealing with those topics of the subject which student generally find difficult to understand. At the end of this section, on-line testing on the identified topics will be provided. Utmost care will be taken to answer all the student's query and thus helping the students to understand the subject in a better way.
- **Assignments** : There will be another section for student assignments. Each assignment will be based on a particular topic of the subject. Student will be required to submit these assignments through Internet. These assignments will be evaluated and immediately students will come to know about the marks of the submitted assignments. The process will be very useful for self assessment for the students.
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On Demand Examination (ODE)

The flexibility is the key to open and distance learning system. But even today the system of examination is a time bound activity and the learner is to depend on the time frame of the examination schedule. The concept of **On-Demand Examination** is a revolutionary concept in the field of education system in general and a great step in the direction of flexibility to the open and distance learning. This will make the total system of examination independent of the time frame and will help the student to take up the examinations as per their wish and preparation. They can walk into the examination centre as and when they feel ready for the examination.

➤ Phase I – Technology Demonstration

After establishing the feasibility and ground level viability of the ODE during the two days seminar cum workshop on “National Testing Service in the Perspective of Open Schooling”

held on 10th and 11th of May,2000 at NCERT, NOS has successfully installed ODE at 5 identified ODE Testing Centre under the pilot project along with the National ODE Testing Server at NOS Delhi.

Existing ODE Testing Centres:

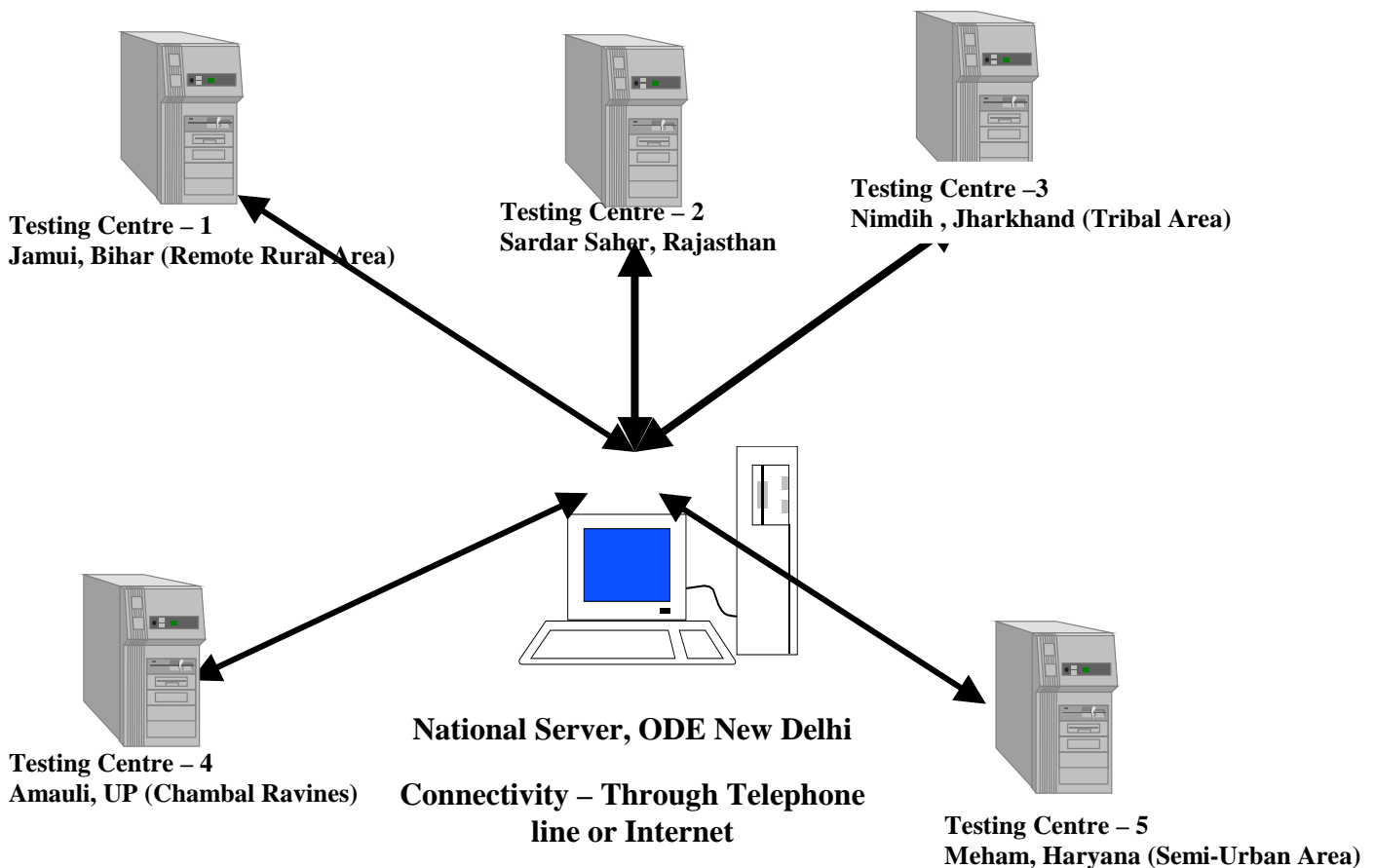
National ODE Server

The National ODE Server has been established at the NOS HQ in New Delhi which would be connected to all its Testing Centre Server either through telephone line or through Internet.

Testing Centres

National Open School has successfully installed and configured the ODE system in all 5 subjects (Hindi, English, Maths, Science and Social Science) in English and Hindi version at class 8 level as its pilot project at the following 5 identified testing centres:

- Jagdamba Bal Vidya Mandir, Sultangarh, Fatehpur (U.P)
- Shrambharti, PO- Khadigram, Jamui, (Bihar)
- Lokasevayatan,PO-Nimdih, Singhbhum(W), Jharkhand-832401.
- Lucky Education Society, Meham, Rohtak, Haryana.
- Gandhi Vidya Mandir, Sardar Sahar, Churu, Rajasthan-331401



➤ Phase II – Expansion of ODE Testing Centres

After having successful installation at the five testing centre under the pilot project NOS is now venturing into its second phase of expanding the testing centres all over India. NOS is also working in the direction of implementing ODE in the Secondary and Sr.Secondary courses.

NOS Results and Marking Scheme on Internet

The results of NOS examinations for Secondary, Sr.secondary and Vocational are published on Internet also. The results are placed on the NOS official web site www.nos.org. This has greatly facilitated the students in knowing their results. For the first time, the marking scheme and question paper of October examinations were also placed on the Internet as a major step toward transparency in examinations.

INDIAN OPEN SCHOOLING NETWORK (IOSN)

NOS has developed an electronic forum as school network in India through Internet. The network is called '**Indian Open Schooling Network**' (**IOSN**). IOSN has brought a great number of Internet based schools all over India together, creating a computer grid. At present about 30 schools are placed under the IOSN network. Furthermore, linkage between schools will felicitate sharing of common values and various contents for educators and learners. The development IOSN will greatly enhance the communication opportunity among the schools and will have great potential to enhance teaching and learning process. IOSN will have linkages with Commonwealth Electronic Network for School and Education – **CENSE**, thereby expanding its scope to become a national grid, which in turn will be linked to its international counterpart.

Summary

The initiatives undertaken by NOS in the field of IT-education and e-learning is really remarkable and have been proved to be a great step towards IT-literacy programme.