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e-DISTANCE EDUCATION MANAGEMENT
A TRANSFORMED PERSPECTIVE

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RAPID advancement in the field of science and technology is changing every sphere of life, which is now being increasingly induced in the field of education also. The growing need for education in this globally competitive world has compelled the man to think and propound fresh ways of attaining education. The rise of distance education is the result of this transformation. Distance education enabled the people to gain knowledge irrespective of any hurdle. It is primarily reaching to those people who so far did not have access to education so the purpose of distance education is two fold, to take learning environment to learners who have been inaccessible and secondly, to provide facilitating educational environment to that advantaged group of learners who have been just a mouse click away from the learning arena. Distance education needs to be digitized by developing such a network, which would automate complete distance education management system. In this online management system, all the phases of curriculum i.e. pre-admission information, admission process, academic calendar, examination, declaration of result, etc is managed through electronic medium. The system eliminates literally the word "distance" bringing the student and education under a single virtual roof. Thus, this concept revolutionizes and transfigures distance education into "Anytime, Anywhere, Anybody" education.

Introduction

Education is the key to growth and development of a society in general and mankind in particular. The extent of development between developing and developed countries varies because of difference in the degree of access to education. In the quest for innovative ways for educating their population, the developed nations have formulated non-traditional ways of education, which has led to the genesis of postal coaching and correspondence education. This has been followed by the development of large communication networks offering education as per the needs of the learners.

The need for non-traditional mode of education was largely felt in developing countries because these countries had to train their vast human resources and ensure their professional growth so that they could contribute to the overall progress of the nation. This resulted in the opening of correspondence schools in the universities as an alternate mode for offering education to vast segments of population. The distance education is a result of development in the field of communication technology in the last two decades. It is a collaborative experience shared by teacher and student which is based upon two-way communication. (Garrison and Shale, 1990). It has evolved into a viable and innovative delivery system for higher education. Paradoxically, as the field has developed, its distinguishing characteristic of "distance" has grown virtually obsolete. Education in the present century is considered education, regardless of where, when and how it is delivered (Olcott, 1996). It incorporates all the elements of the correspondence courses and provides additional and new methods of instruction. It is an innovation in the field of education, for it aims at throwing open the doors of higher education to any one who seeks it and makes use of the latest developments in the field of communication technology to achieve this end (IGNOU, 1987). This new learning approach is far more flexible and tends to exploit the potential of open and distance learning with the learner being free to choose the place, pace and time of learning. This flexibility is greatly facilitated by the use of technology particularly the new information technology (Reddy and Venugopal, 2000). This revolution will have a profound effect on teaching and learning for all of us (Ryan and Freeman,

2000) (Inglish and Joosten, 1999). Keegan, an authority in the field of distance education, identifies seven characteristics, which he regards as being essential for any comprehensive definition of distance education:

- The separation of teacher and student;
- The influence of an educational organization;
- The use of technical media;
- The provision of two way communication;
- The absence of group learning, with students taught largely as individuals (while retaining the possibility of occasional seminars)
- Participation in most industrialized form of education;
- The privatization of learning (in that learning occurs away from the group) (Keegan, 1990).

India too witnessed a significant expansion in distance education since the opening of first school of correspondence education in 1962 in University of Delhi. At present, the mode of distance education is now available in over 60 universities in the country with a total enrolment of over one million students.

Management of Distance Education System

Three basic components constitute the system of distance education. These constituents are:

1. Learner (who is to study);
2. Learning environment (where, when and how to teach); and
3. Learning material (what to teach).

The management of distance education is entirely dependent on effective planning, management and development of all these components in order to achieve learner satisfaction. Before undertaking detailed study of this system, we will identify the key areas associated with each of the components of the system shown in Figure 1.

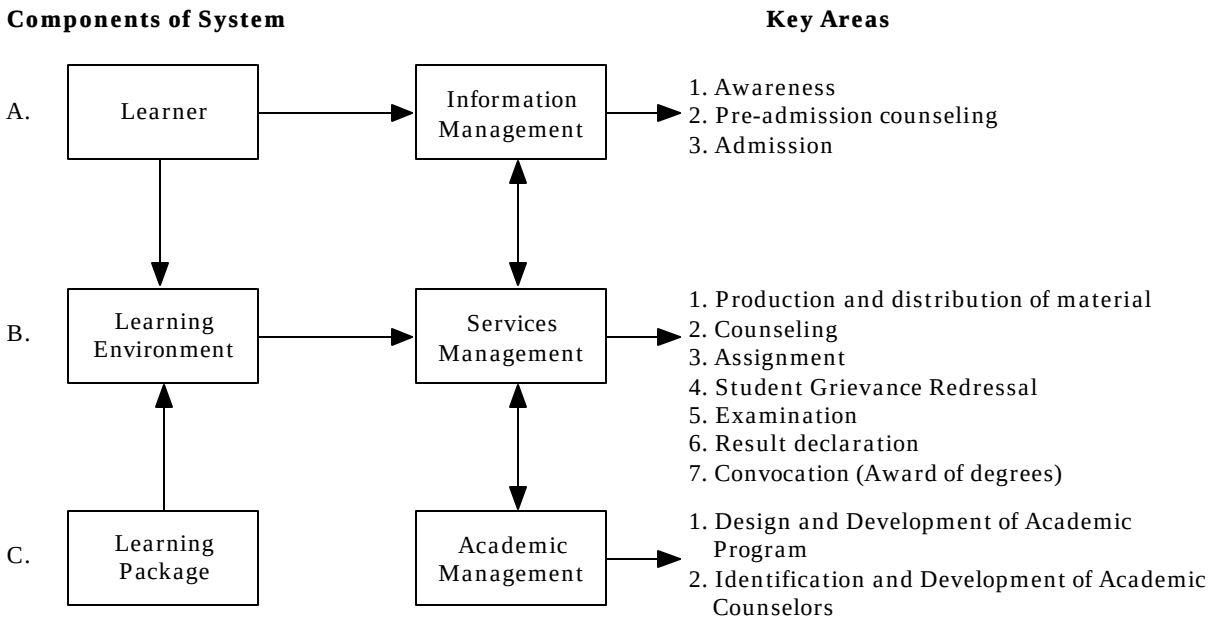

Figure 1: Distance Education Management

As evident from Figure 1, the prime component of the distance education management is learner and another important component is the learning package. Together they constitute the learning environment. This can also be expressed in another form as illustrated in the Figure 2.

Learner and learning package with the help of information management and academic management and development lead to the genesis of learning environment. This learning environment in real practice can be created by effective management of services offered by the distance education institutions (DEIs).

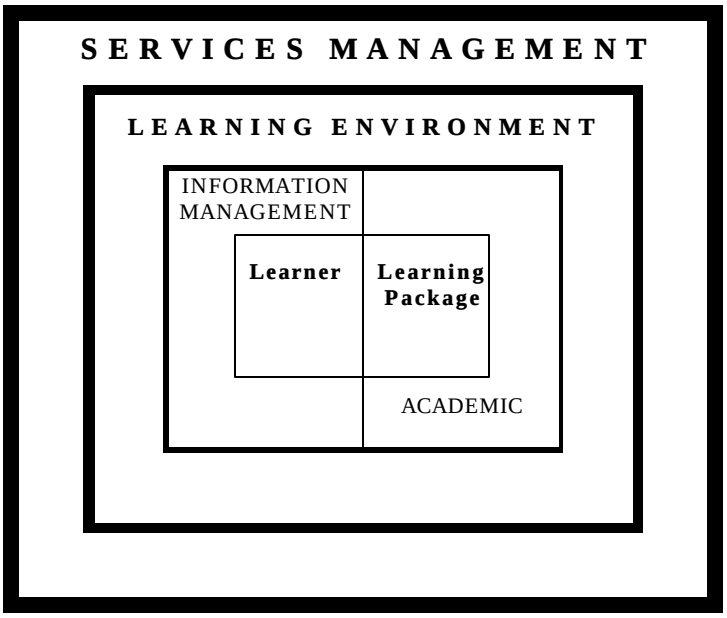

Figure 2: Components of Distance Education Management and its Environment

Emerging information and communication technologies now converging on the Internet are triggering significant changes (a) in the kind of learners served by distance universities, (b) in the delivery of programmes of study, and (c) in the configuration of teaching staffs and organizational structures. Transcending space and time, learning environment created by the unfolding digital technologies provide great opportunities to distance teaching institutions (Satyanarayana, Sesharatnam, 2000).

The key areas under each sphere of respective management system are being focused in the following section.

a. Information Management

The process of information management commences with the creation of awareness about academic programs among the people. This also includes giving them an insight into the facilities offered by the University. Here, various media i.e. print as well as electronic media play a vital role towards generating awareness about the system in general and about academic programs in particular. Subsequently, the prospective learner approaches the institution for pre-admission counseling followed by his/her admission to the distance education system.

b. Services Management

Here support services of varied nature and type are offered to the learners in order to create learner-centered environment. The services include counseling sessions at the study centers/program study centers, assignment submission by the learners and its evaluation by the counselors, redressing of learners' grievances, conduct of examination at various centers all over the country, declaration of result and finally award of degrees. The overall objective of providing services to the distance learners is to bring the learning environment at the doorsteps of the learner rather than taking learner to the learning environment.

c. Academic Management

The key areas of the sub-system of academic management are design and development of academic programs and identification of academic counselors apart from providing them the necessary orientation and training on distance education system. Training, management and development of academic counselors is important because they are the carriers of the learning environment.

Distance Education System: The Present Scenario

Indira Gandhi National Open University is the national level central university responsible for providing quality education to the learners through distance education. Presently, dissemination of information amongst masses about academic programs starts with the advertisement appearing in the national and regional dailies along with capsules of advertisement on radio and television. Having become aware of the academic programs of the University, the prospects approach the nearby regional centers wherein they are provided the prospectus cum application forms. The students fill up the application forms and submit them at the regional centers.

The forms are then processed at the regional centers, followed by data entry. Subsequently, the data of the applicants is dispatched to the Headquarters for confirmation of admission. On confirmation of admission from Headquarters, study material (self-learning material) is sent to the newly admitted students from the material production division of the Headquarters. Simultaneously, information for confirmation of admission is also sent to the concerned learners by the regional centers. The confirmation of admission and dispatch of study material to the students marks the end of the admission process in the university.

Once the students get confirmation about admission, they (now distance learners in the terminology of distance education) are called by their concerned regional centers for the introductory interaction with the functionaries of distance education system. This event is called induction meeting. The purpose of this meeting is to formally make the learners aware of the various components and functions of distance education system. Organizing of counseling sessions at the study centers/program study centers where the counselors interact with the students and clarify their subject related doubts follows the induction meeting.

The performance of the students (distance learners) is evaluated in two ways i.e. internally (continuous assessment) and externally (term-end examination). The continuous evaluation is done by evaluating the assignments submitted by the students at the study centers/program study centers while their term-end evaluation is done by their performance in the examinations held at the end of the particular term/session. The Headquarters with the help of result card communicates the performance of the students to them. The learners are provided with grade card (mark sheet) and provisional certificate. Subsequently, at a later stage, the University organizes convocation simultaneously at the Headquarters as well as the regional centers where learners are awarded diplomas and degrees.

The design and development of academic programs is totally done by the team of experts known as in-house faculty of the University who are posted at its Headquarters. The University has discipline specific schools, wherein, faculties are engaged in design, development upgradation and revision of academic programs. For each academic program, an expert committee is constituted for overall coordination in design and development of the academic program. It would be pertinent to mention here that an academic program is a constellation of several courses and each course is supervised by in-house faculty and outside subject experts from the field of the academic program. There is a course coordinator who coordinates all the tasks related to development of the course in association with subject related faculties. The present system is shown in Figure 3.

Analysis of Present Distance Education Management System

The innovation and latest development in the field of information technology has influenced every sphere of education. It has brought significant and revolutionary changes in the distance education system for delivering the academic programs. In the light of the advancements in the field of information technology, we will conduct SWOT analysis of distance education system and then suggest a system wherein optimum utilization of information technology is ensured to develop an e-Distance Education Management System. The analysis of the present system is given in Table 1 and Table 2 wherein Table 1 focuses on the strengths and weaknesses of the system and Table 2 highlights the opportunities and threats of the system.

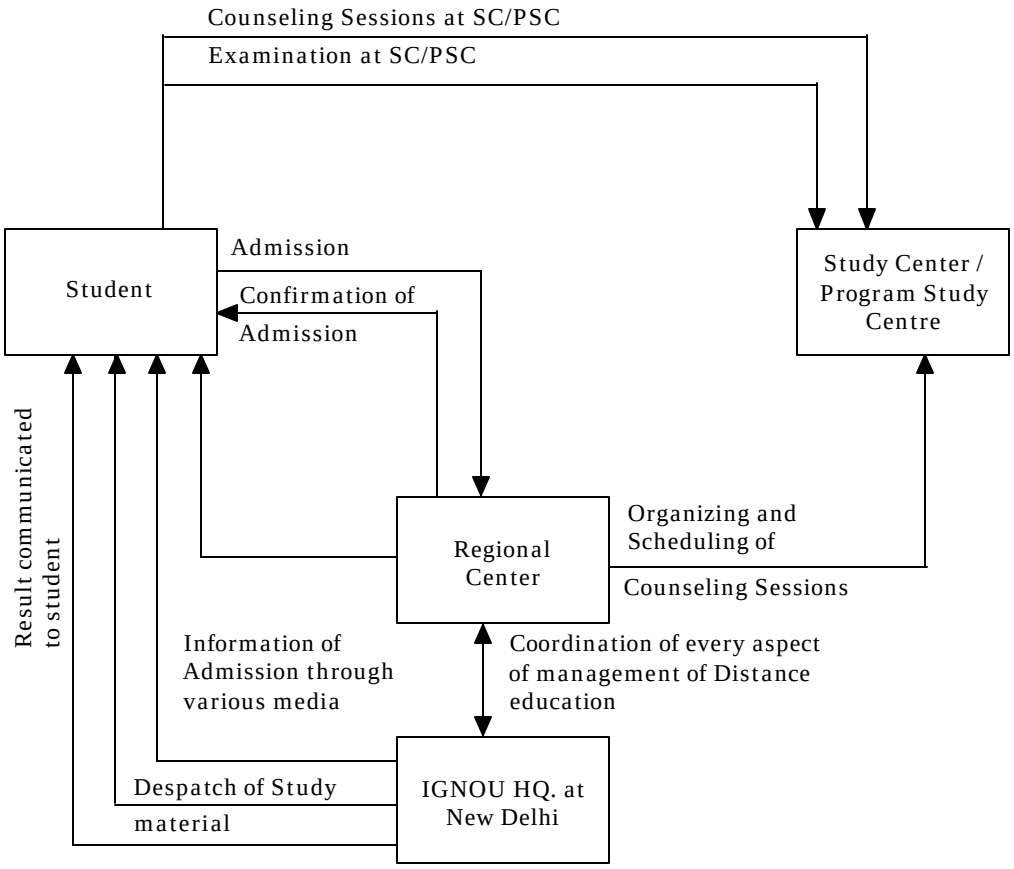

Figure 3: Study of IGNOU System: The Present Scenario

As is evident from the Table 1 and Table 2, three basic components of distance education management system i.e. information management, services management and academic management are analyzed on four levels/ scales namely, strengths, weaknesses, opportunities and threats. While in the section of strengths, the qualities and characteristics of present distance education system are listed, the segment constituting weaknesses gives a comparison of the present distance education system and futuristic e-distance education management system and points out its limitations. It also identifies the areas which need to be stressed upon for improving the setup and developing e-distance education management system. Similarly in the opportunities sub-section, key areas are identified which when included and merged with present distance education system, will help to evolve a composite e-distance education system. Strengths and opportunities together will not only overcome the threats posed by other distance education institutions but also face successfully the challenges of conventional mode of education.

The strengths and opportunities of the distance education system will form the basis of developing the new model of e-Distance Education Management System. This model would also be designed considering the three sub-systems of distance education management i.e. information management, services management and academic management.

e-Distance Education Management Model

The analysis of the present system of distance education in terms of its strengths, weaknesses, opportunities and threats (SWOT) provides the necessary feedback towards modeling a new management system for open and distance education. This model of open and distance education is a fresh approach for enlightening the people about the merits of this mode of education and also encouraging them to adopt this system in

Table 1: Strengths and Weaknesses of the Present System

Strengths	Weaknesses
Information Management 1. Awareness through print and electronic media. 2. Pre-admission counseling at RC and SC/PSC level. 3. Decentralized admission at the RC level.	**Information Management** 1. Access to information and awareness to only city and district headquarters. 2. Less use of electronic media including web based advertising. 3. Preadmission counseling is only face-to-face. No counseling through electronic medium and if possible then limited to radio. 4. No decentralization in admission. 5. No online admission is so far possible.
Services Management 1. Doorstep distribution of study material. 2. Decentralized counseling at SC/PSC, some of them even located at Tehsil/block level. 3. Hassle-free and decentralized assignment submission and evaluation. 4. Grievance redressal mechanism at all the levels i.e. SC/RC and HQ level. 5. Decentralized conduct of examination. 6. Opportunity for appearing in the examination twice in the year. 7. Declaration and information about results at the doorstep of the student. 8. Decentralized convocation i.e. award of degree/ diplomas at the RC level.	**Services Management** 1. Dispatch of study material through post leads to delay and erroneous dispatch i.e. at wrong address. 2. Study material which is not dispatched, is returned to HQ. Hence the students have to go to HQ for getting the material. 3. Delay in dispatch of material leads to delay in submission and evaluation of assignment. 4. Counseling only at weekends or on holidays.
Academic Management 1. Wide range of academic programs available i.e. from certificate level to Ph. D. level. 2. Large pool of academic counselors to provide counseling at the SC/PSC.	**Academic Management** 1. Academic programs are generalist in nature rather than professional / specialist in nature. 2. Contents of academic programs are not revised and updated regularly. 3. Pool of academic counselors does not include retired teachers, educated unemployed and professional youths. 4. Region / issue based academic programs are not developed. 5. No feedback from environment before design and development of academic programs so as to assess the suitability of the programs according to the learner needs.

Table 2: Opportunities and Threats of the Present System

Opportunities	Threats
Information Management 1. Use of TV, Internet (Web-based advertising) for creating widespread and large-scale awareness. 2. Intensive utilization of information technology for creating awareness. 3. Learner friendly software / websites for giving online pre-admission counseling. 4. Online admission.	**Information Management** 1. Stiff competition from other DEI in information management and relaxed and decentralized admission process. 2. Entry of quality international educational institutions in the field of distance education equipped with quality coursewares and tools of information technology.
Services Management 1. Electronic courseware in addition to printed material. 2. Study material available online. 3. Online counseling and discussion. 4. Online submission of assignment and reflection of grades. 5. Online redressal of grievance. 6. Online submission of examination forms. 7. Online declaration of result.	**Services Management** 1. Competition from other DEI / CCI and institutions of other countries, collaborating with local institutions for revolutionary services offered in the field of distance education.
Academic Management 1. Online feedback from learners for course revision and up gradation. 2. Online interaction between learners and core faculty (including course preparation team). 3. Online counseling by academic counselors. 4. Online management and development of academic counselors and their orientation.	**Academic Management** 1. Extensive use of information technology in conventional mode of education. 2. Availability of quality academic counselors for distance education. 3. Training and development of large pool of academic counselors. 4. Design and development of professional program (Engineering and Medical) and delivery through electronic medium. 5. Planning, management and development of functionaries of distance education system i.e. distance education professionals.

Note: RC – Regional Center

SC – Study Center

PSC – Program Study Center

DEI – Distance Education Institution

CCI – Correspondence Course Institution

larger number. It is also directed towards initiating steps for encouraging home-based education and training "Education on Demand" is the watchword for this century. Home-based education is the future and the future is here (Olcott, 1997).

Though for the present setup of IGNOU, there have been no dearth of plaudits yet there still are certain areas in the organization which call for drawing greater attention of policy makers so as to be more clientele-oriented and proactive in nature. A step in this direction would be to device such an educational system that would be fully automated and readily accessible for all those people who are interested in acquiring higher education and who are located in the far-flung regions not only in India but also in the countries abroad.

The proposed system here has been designed by using the advancements of information technology in the field of distance education. In the backdrop of what has been presented in the SWOT analysis earlier here, the new system would comprise of three completely digitized education management sub-systems namely, e-information management, e-services management and e-academic management.

1. e-Information Management

This module of the e-distance education management would serve dual purpose, firstly, it would be responsible for effectively managing pre-admission counseling process through online mode and secondly, it would facilitate the process of admission. As depicted in the Figure 4, the learner can get access to all the necessary information related to the programs and admission from IGNOU website.

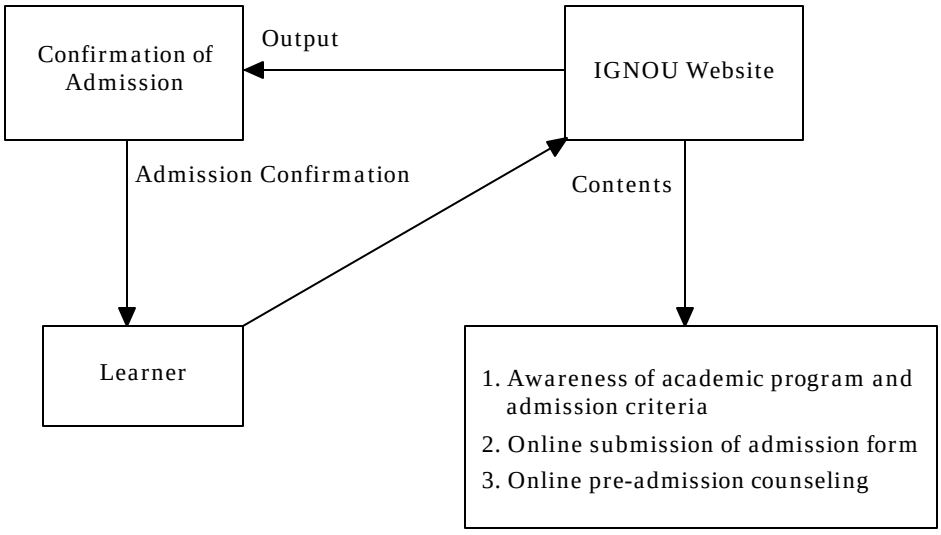

Figure 4: e-Information Management

Apart from giving other details, the website would contain particulars of academic programs and the eligibility criteria for taking admission to these academic programs; the admission form for online submission and will provide pre-admission counseling also through online mode. When an applicant submits the admission form online, the IGNOU automated system would in turn give confirmation of admission after necessary processing.

2. e-Services Management

As already stated in the earlier sections of this paper, education through distance mode reaches the learners with the help of an assortment of support services. The services to be provided to the students could also be better handled by implementing the modern techniques of communication and information technology.

As evident from Figure 5, the learner would get all the information regarding allocation of study centers / program study centers, counseling schedule, assignment submission schedule, tele-conferencing and interactive radio counseling calendar, and examination time-table on accessing either the IGNOU Website or the Regional Center Website. The study centers / program study centers would be preparing the counseling schedules and sending it to Regional Centers for updating the Website.

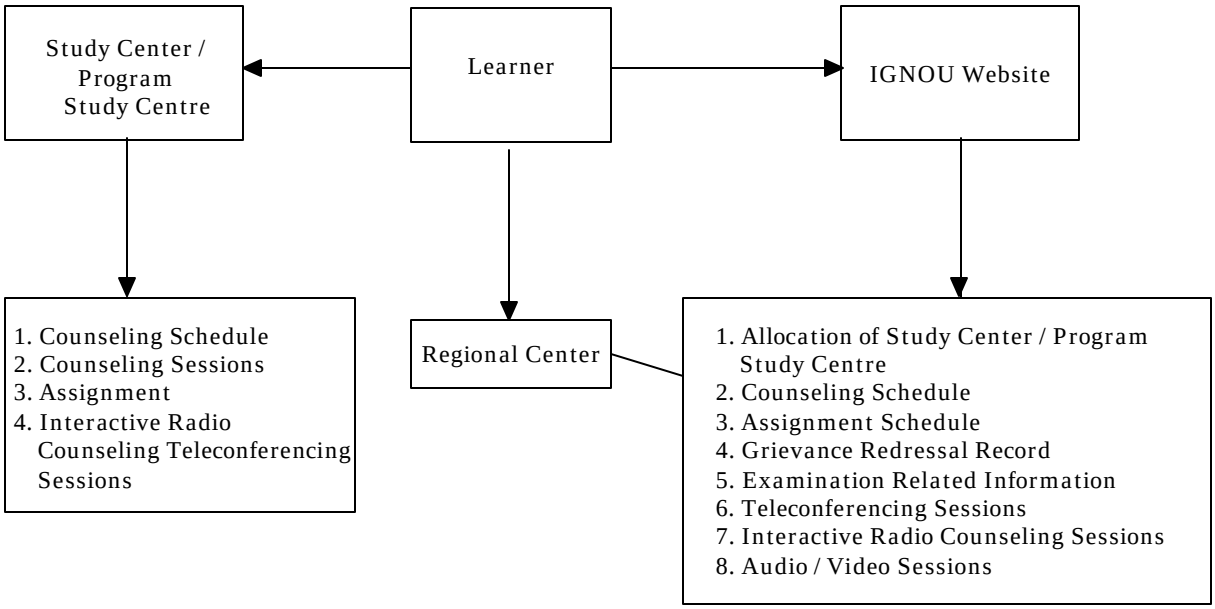

Figure 5: e-Services Management

In this way, a distance learner would get all the information at his/her place without having to travel to Regional Centers for availing of the services. This process has been further elucidated in Figure 6, which illustrates the information flow from various points i.e. Regional Center / Study Centers to the student.

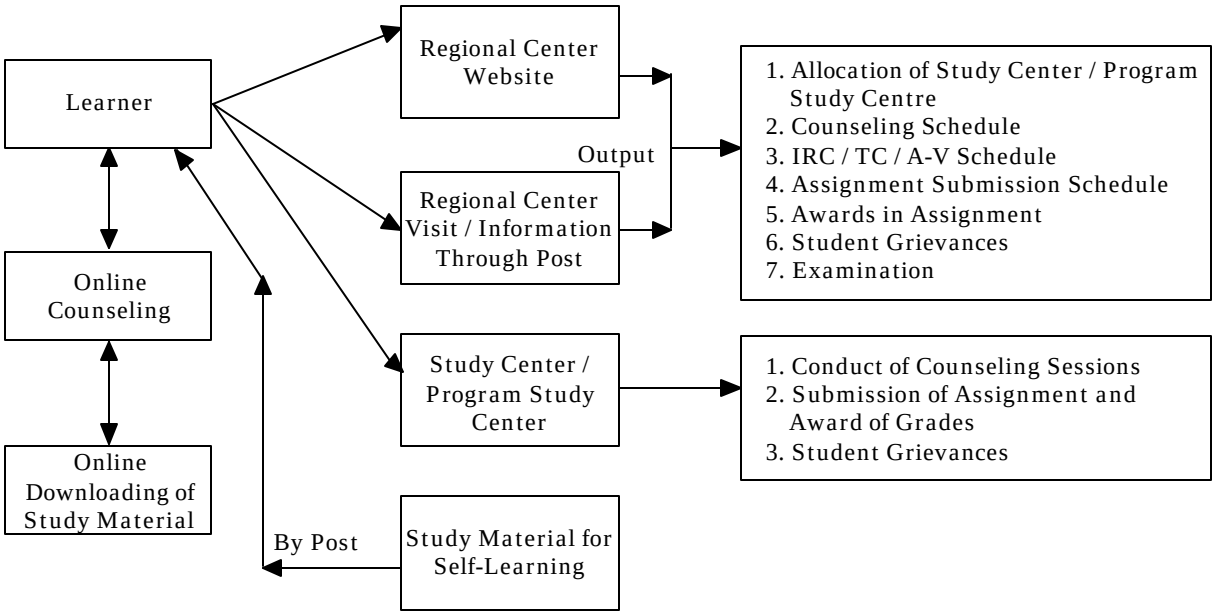

Figure 6: e-Services Management: Counseling

3. e-Academic Management

Functions such as design and development of academic programs and identification, training and development of academic counselors fall under the ambit of the third component of e-distance education management i.e. e-academic management.

While the latter part of e-academic management would be handled by the Regional Centers, the subject specific schools at the Headquarters would be instrumental in properly supervising the former i.e. design and development of academic programs. This process would commence by initially determining the potential for a particular program. This task would be accomplished by getting feedback from the Regional Centers about the potential of a program. The information so obtained from the Regional Centers would be analyzed at the Schools in the Headquarters for finding out the suitability of the academic program. Subsequently, the academic program would be designed and developed for launching it in association with the Regional Centers and Study Centers / Program Study Centers. Trial or testing of the newly designed academic program would be done at the RC / SC / PSC level. This process is shown with the help of an illustration in Figure 7.

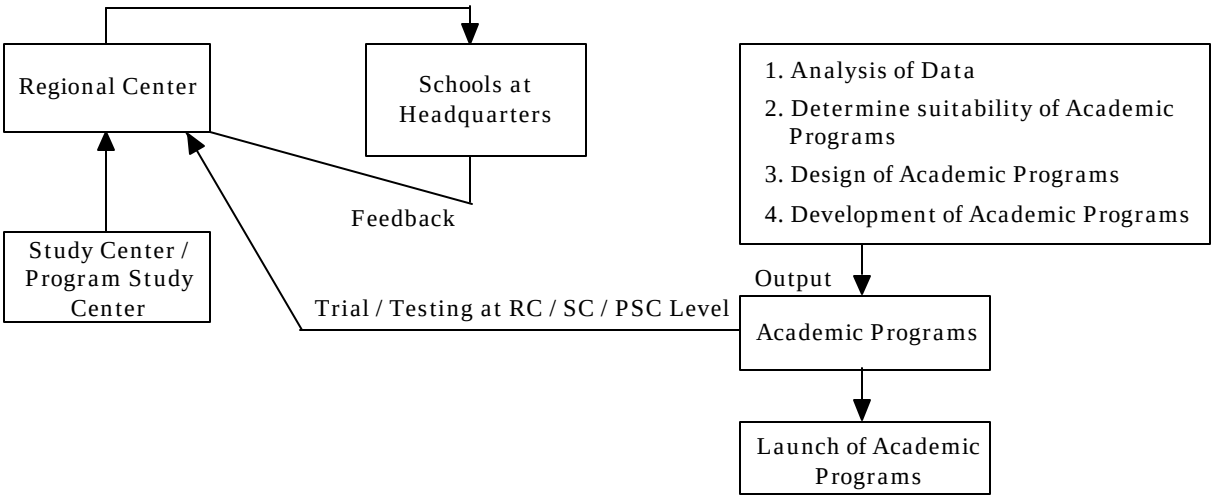

Figure 7: e-Academic Management: Design and Development of Academic Programs

Another aspect of e-academic management is the identification of academic counselors and their training and development. As seen in Figure 8, the subject related experts are identified by the Regional Center at their level from the local educational institutions for counseling purpose. The bio-data of these experts would be sent to the Headquarters for confirmation of the appointment of these counselors. Once appointed, these academicians would be trained and oriented on the various facets of open distance education mode at the Regional Center, which in turn, would also maintain a database of these experts for ready reference. Thus, this would automate and digitize the academic management and make the system more clientele oriented.

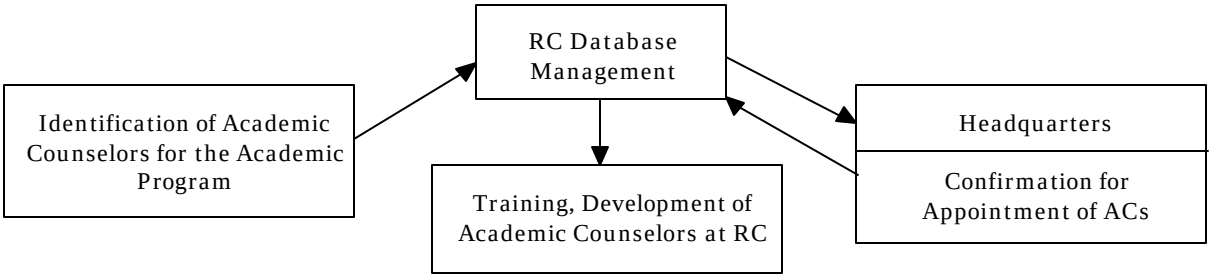

Figure 8: Identification of Academic Counselors

Conclusion

The advancement in the field of communication and information technology is being felt in every sphere of life. The developments and innovations in this field are being adopted and utilized in every functional area of the society and organizations. This rapid spread of computer knowledge and its application is having positive effect on education and its dissemination also. Earlier one had to travel long distances for gaining knowledge but now time has come when education is reaching the doorsteps of the masses and helping them in getting enlightened and aware of academics and its usefulness.

The genesis of distance education mode of learning and its rapid spread in India and abroad has been possible due to advancement in communication and information technology. More and more people are now turning to the mode of distance education for widening their knowledge base and for becoming proficient in their work life. Ergo, now there is a need for devising a new digitized system that would act as a facilitator for the distance learners and help them in acquiring timely and relevant qualification.

The automated distance education management model presented here would take education to all those individuals who have so far been deprived of acquiring knowledge and expertise due to geographical and social isolation. Adequate and timely implementation of e-distance education management system in all the distance education institutions would help in taking the learning environment to the pupils and making them aware of the opportunities for overall sustainable intellectual growth and development.

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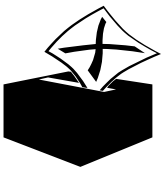

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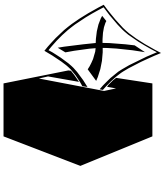

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