

COMMONWEALTH OF LEARNING
Commonwealth Educational
Media Centre for Asia

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2008

As a force contributing to social and economic development, open and distance education is fast becoming an accepted and indispensable part of the mainstream of educational system in both developed and developing countries, with particular emphasis for the latter.

Sir John Daniel

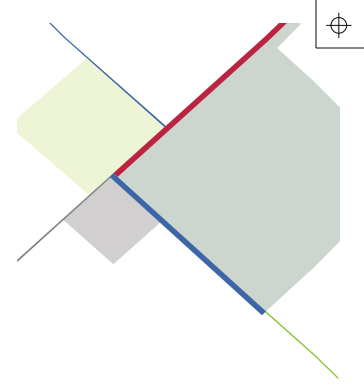
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EasyNow: An Innovative Approach

In view of the philosophy of open and distance education to provide wider access to education to a large number of learners who could not be accommodated in the conventional system due to paucity of infrastructural facilities, academic institutions have been adopting newer technologies and alternative strategies. We need a system that is flexible from the point of view of time and space and equally good if not better. The use of Information and Communication Technology (ICT) has come in handy in the production of efficacious learning materials that are suited for self-instruction.

Though laudable, the new technologies have not been able to make a dent in the resources crunch due to many factors. The prohibitive cost of the production of multimedia software for educational purposes has deterred many academic institutions from going in for new technologies. The teachers, especially in the developing countries do not have enough exposure to the ICT tools for the same reason. The votaries of the poor have held the opinion that computer related development leads to digital divide and creates further deprivation.

The CEMCA Initiative

In introducing the multiple-media delivery through EasyNow, CEMCA has tried to find a solution to all the problems cited above. It has already demonstrated that the use of the new approach of EasyNow, using open source product, is least expensive and is quite affordable for any academic institution, provided it encourages its own academic staff to undertake the production. The teaching community need not be overawed by the intricate technical details; CEMCA has demonstrated successfully at many places in India and abroad that the programme is really easy to use with a little hands-on practice. It has created a ready-to-use platform that enables every teacher to create his/her courseware in a multiple-media mode, online and offline, on CDs and VCDs that can be heard and seen on inexpensive players connected to the home TV, the audio lessons can also be broadcast over digital radio systems and the community radio networks. Finally, the ever popular print information can be had in the form of a book or as multimedia lessons on the NET. In

addition to these factors that indicate the nature of digital bonding, the CEMCA initiative also aims at catering to the needs of visually handicapped persons with the provision of Braille printouts and Text-to-Speech facilities. It has taken care that all aspects of delivery oral and visual, textual and graphic are covered; all possible techniques of ICT are tapped in imparting knowledge. CEMCA has conducted so far many workshops in Indian universities and in Asian countries such as Bangladesh, Maldives and Sri Lanka.

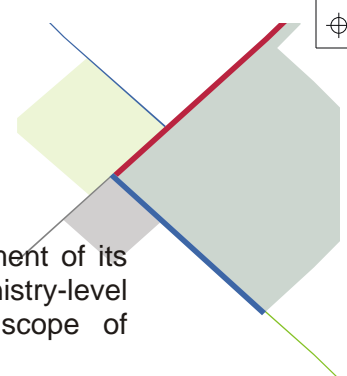
EasyNow: A Collaborative Venture

CEMCA will provide to any institution willing to join the venture and start its virtual campus the following:

- It will provide the platform to run academic programmes on virtual mode and the Knowhow for handling all the tasks
- It will give hands-on training to the select group of academics of the university
- It will help the institution in uploading on the NET
- It will monitor the academic administration as and when necessary
- It will help in troubleshooting and provide strategic help

The collaborating institution needs to provide the following:

- It should identify the programmes that it wants to run initially on virtual mode
- It should identify a core group for each programme in each discipline comprising
 - An Academic
 - A Media Person
 - An IT Person
- It should have decent computer centre with networking facilities
- It should be willing to spend some money on a few inexpensive gadgets
- It should have the infrastructural facilities for facilitating the tasks of CEMCA



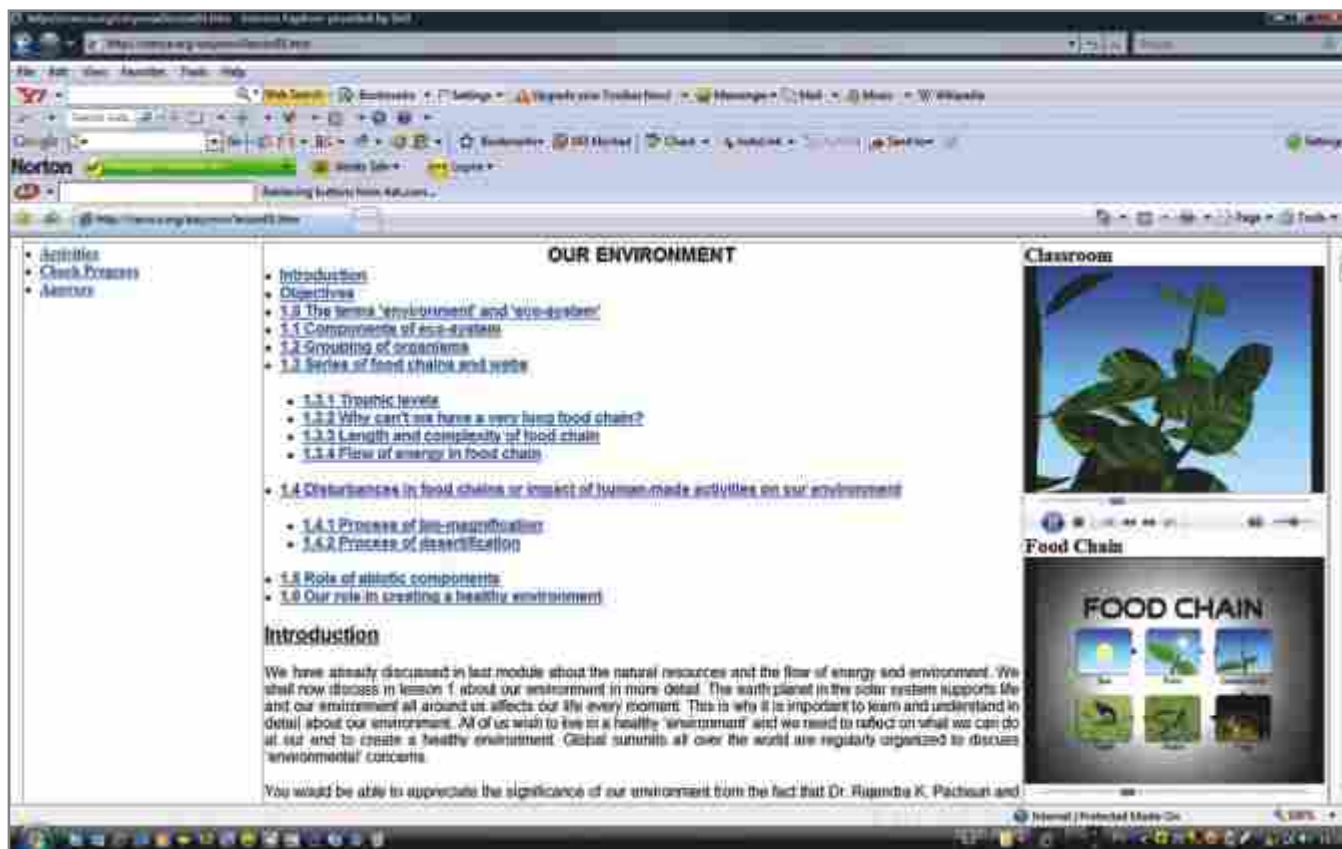
CEMCA has provision for undertaking the collaboration only to a limited number of institutions every year due to constraints of time and money. The institutions are finalised on a 'first come first served' basis.

The Agreement

CEMCA is a non-governmental international body with a mandate to work for the development of education in Asia. It is neither an educational institution nor a funding agency. The joint venture shall have no financial implications on either side. The host university does not have to pay anything to CEMCA for the collaborative efforts, nor will CEMCA give any financial grant for this venture. The host institution should view this project as an opportunity for value addition for them and for widening their area of operation. It may contact donor institutions or the Ministry of Education or the

Ministry of Human Resource Development of its country for funding. Making efforts for ministry-level action is unfortunately outside the scope of EasyNow project.

In conclusion, we would like to state that this is a WIN-WIN situation for everyone in this venture. For CEMCA, this fulfils the objectives of outreach and academic excellence in the developing countries of Asia for which it has been created and meets the goal of educational opportunities for all. For the host institutions, it is quality education that suits the advancement in the area of ICT at affordable costs, tapping the latent talents of the academic community and the possibility of administering varied programmes to a vast majority of learners that need them. Of course the ultimate gainer is the learner for whom the entire enterprise of using ICT and providing alternative strategies has been gaining ground.



A sample page from the EasyNow programme

EasyNow

From Multimedia to Multiplatform digital divide to digital Stand-alone Content based learning leading to social ca

The Commonwealth Of Learning (COL)

The **Commonwealth of Learning** is an intergovernmental organisation of the Commonwealth of Nations with its Headquarters in Vancouver, British Columbia, Canada. Founded in 1987 at a Commonwealth Heads of Government Meeting, COL's mandate is to promote and develop the use of open learning and distance education knowledge, resources and technologies throughout the Commonwealth's 53 member states. COL has evolved into one of the world's leading distance education provider and led the international development in distance education along with UNESCO. COL is the only intergovernmental organisation solely concerned with the development of distance education.

COL's activities are grouped under three sectors: education, learning for livelihoods and human environment. COL helps nations increase access to quality education at all levels by focusing on quality assurance, teacher development, new approaches to higher education and the creation of expertise in Electronic learning. It helps countries to identify where livelihoods can be improved, and to create matching learning opportunities.

India is one of the five founders of COL, along with the United Kingdom, and is represented on COL's Board of Governors. The current President and CEO of COL is Sir John Daniel, who was formerly Assistant Director-General for Education at UNESCO and Vice Chancellor of the Open University from 1990 to 2001.

COL's overall approach and the focus, scope and type of specific programmes and projects is directed by a guidance document referred to as the Three-year Plan, revised with each funding cycle. Revisions are based on input and feedback from Commonwealth member governments and organisations, and are informed by the changing development needs of Commonwealth member nations. **Learning for Development** is the theme of COL's Three-year Plan 2006-2009. The goal of the plan includes the United Nations' Millennium Development Goals (MDGs) and Education for All (EFA) declarations and the Commonwealth's priorities of peace, democracy, equality and good governance.

COL is also coordinating the development of a Virtual University for Small States of the

Commonwealth (VUSSC), a network focused on collaborative development of open educational resources. It is also supporting Wiki Educator, a community resource for the development of free educational content with contributions from enlightened users. It is turning the digital divide into digital dividends using open networks.

The outputs and outcomes of COL's activities can be grouped into three categories:

- **Policies**

COL advises on, and facilitates, policy development by governments, agencies and institutions in the use of educational technology.

- **Systems**

COL aims to enhance capacity and capability as the surest way of nurturing organisations to achieve greater impact in the implementation of technology-based learning systems.

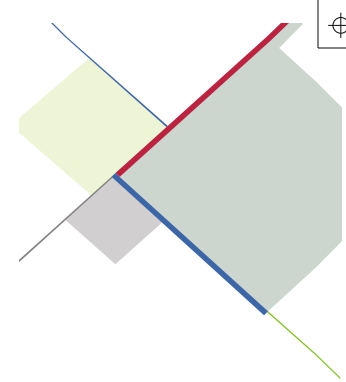
- **Models and Materials**

COL develops and promotes models for the use of technology in learning that are self-replicating and sustainable. It fosters partnerships for developing learning materials and extending their use around the Commonwealth.

Through its own resources and its extensive networks, COL provides a wealth of services and collaborative opportunities for policy makers, institutions and distance education practitioners to enhance and encourage the development of, the use of Open and Distance Learning (ODL) policies, systems, models and materials.

The COL helps governments and institutions to expand the scope, scale and quality of learning by using new approaches. COL promotes policies and systems to make innovation sustainable and works with international partners to build models, create materials, enhance organisational capacity and nurture networks that facilitate learning in support of development goals.

COL Mission Statement (Three Year Plan 2006-2009)



The Commonwealth Media Centre for Asia (CEMCA)

CEMCA operates as a regional media service of COL. It works for achieving the objectives laid down by COL for the development of education in the region. In consonance with the mission of the COL, it strives to promote meaningful, relevant and appropriate use of information and communication technologies to serve the educational and training needs of the Commonwealth countries in Asia. CEMCA functions through networking and information transfer. An advisory Council consisting of representatives from major open learning institutions in the region guides CEMCA for broad policy formulation, monitoring and evaluation. CEMCA's services are available to all developmental and educational institutions and agencies in Commonwealth Asia. It is headed by Dr R Sreedher, Director, CEMCA.

Programmes

Learning for Development is the theme of COL's Three-year Plan for 2006-2009. Conceiving of development as a process of increasing the freedom that people can enjoy, the plan addresses an agenda that includes the UN's Millennium Development Goals, the goals of Education for All, and Commonwealth's objectives of peace, democracy, equality and good governance. Increasing and improving human learning is the key to fulfilling most aspects of this development agenda. Conventional instructional approaches simply cannot expand quickly enough to meet the challenge. COL's role is to help countries use a range of appropriate and available approaches and technologies to foster learning at scale.

CEMCA has many programmes and projects in pursuit of these goals.

Community Radio

It helps institutions build capacity for Community Radios, which is a powerful medium of communication and an affordable proposition for networking academic resources at the regional level. Four workshops have been conducted in the cities of Lucknow, Kolkata, Pondicherry and Baramati so far by host institutions with the help of and in collaboration with CEMCA.

Science For Women (SFW)

CEMCA catalysed and supported by *Rashtriya Vigyan evam Praudyogiki Sanchar Parishad* (RVPSP), Department of Science and Technology, Government of India has embarked upon a pan-Indian project to evaluate the understanding of and to encourage the application of science in everyday life of women. 13 colleges/universities have organised workshops so far under this.

Medlib

An Electronic Media Library Management Software which automates cataloguing, classifying, storage and retrieval of audio/video programmes including stock shots. CEMCA in collaboration with EMPC, IGNOU had taken the initiative to create specially designed software for non-print audio/video resources. INFOTEL, India has prepared MEDLIB, software specially designed on Windows platform, fully Y2K compliant. It is easy to use and enables search on a large number of parameters, like title, content, subject, producer, scriptwriter, etc.

Workshops

CEMCA organises training programmes and workshops in the area of educational technology to build the capacity of educational institutions and human resources to use information and communication technologies effectively.

Over the years, CEMCA has conducted a series of workshops in the following areas:

- Development of Multimedia Courseware
- Internet and Education
- Management of Non-Print materials
- Research methods for media
- Broadcast technology
- Production of Audio and Video Programmes

While some of the workshops are conducted exclusively for institutions on request, most of the training programmes are planned, designed and delivered by CEMCA in collaboration with leading institutions in the region.

Some of the partner institutions of our past training programmes include:

- Indira Gandhi National Open University, New Delhi
- National Centre for Software Technology, Mumbai
- Osmania University, Hyderabad
- Bangladesh Open University, Dhaka
- Open University of Sri Lanka, Colombo

Databases

Media Database: As ongoing project of CEMCA, the database has information about audio and video programmes developed by educational institutions in the region. You can search the database through title, keywords, subject,

producer, institutions and many other fields. Constantly updated, every year the database is made available offline to participating institutions twice through CD-ROM services

Consultant Database: A database of experts available in the region for exchange and sharing of human resources in the field of media and educational technology. You can send your resume to us online for inclusion in the database. Or else download the form to send it by post to us.

CEMCA organises a media library on its website, where one can have access to materials of quality. The details these and various other projects and activities of CEMCA can be had at www.cemca.org.

EasyNow is one of the major projects of CEMCA. We will go into the details of this project hereunder.



Science for Women's Health and Nutrition Workshop



Workshop on education for people with special needs



EasyNow Workshop at New Delhi



EasyNow Workshop at Tamil Nadu

Down the Path and Up to the Goal

The changing scenario in the field of education has made it necessary to adopt ICT for teaching-learning. Once we have set goals, we should know the various paths that can be adopted.

Open and Distance Learning

We humans have always strived to propagate knowledge and spread education whenever we found the way. The invention of printing prompted formal education, the Postal Services prompted the correspondence courses. Tapes and films gave rise to the audio-visual method of teaching and the invention of computer gave us a chance to use it for Computer Aided Learning (CAL). So it is only natural that all the advancement in the field of ICT should be reflected in the way we organise our distance education programmes. All the new ventures in this area like Computer Based Training(CBT); e-learning, online and offline programmes are subsumed under the generic term Open and Distance Learning (ODL). The word 'open' connotes not only the flexibility and freedom from confines that is characteristic of this mode, but is also suggestive of the free access to education, that international bodies such as COL and CEMCA are trying to bring in, especially in matters relating to human development, social welfare, etc.

The word 'distance' sometimes evokes doubts in our minds about the credibility and acceptability of the system as we seem to nurture the idea by tradition that a guru alone can give wisdom. In fact, distance learning can sometimes be better because it lays stress on self-learning. A self-learner is highly motivated and can learn better if he/she knows how to go about the job of learning. So, the question of comparison between the two systems should really be based on how well or badly it is employed. Both classroom teaching and correspondence courses that aim at preparing the students just for examinations by resorting to cramming should be eschewed. An ODL programme should be considered to be equally good if not better, if it imparts proper study skills to the learners, produces effective Self-Learning Material (SLM) modules, builds in interactivity through peer group interaction and consultation with the Distance Learning Facilitator (DLF) using NET facilities such as blogging and chatting. EasyNow has tried to build in all these features into

the method so that the ODL learner gets the best of both the worlds.

E-Learning

Electronic learning (or e-Learning or eLearning) is a type of education where instruction is through the electronic medium. It is a planned teaching/ learning experience that uses a wide spectrum of technologies, mainly Internet (called Web-Based Training or WBT or online) or Computer-Based Training (offline or CBT), to reach learners at a distance. These two are called offline and online programmes respectively. Thus, by definition, e-learning becomes synonymous with self-learning. E-learning is used to define a specific mode to attend a course or programmes of study where the students rarely, if ever, attend face-to-face for on-campus access to educational facilities, because they study online.

Educational institutions that run on-campus, face-to-face programmes stand to gain from this initiative as they can enhance the quality of their own programmes by using the e-learning software in their regular programmes, in a mode aptly called Blended Learning.



Virtual Learning

E-learning is used to define a specific mode to attend a course or programmes of study where the students studying online miss the benefits of Face-to-Face (F2F) interaction. This is considered to be a lacuna on the part of distance teaching,

especially in advanced studies and research, where focused discussions are needed on a regular basis. The virtual initiative addresses this problem and provides for constant interaction.

The attribute "virtual" in virtual university has two dimensions. One is the organisational dimension, as expressed in terms like virtual organisation and virtual enterprise. The other dimension refers to instructional media: "Virtual" is used for a type of higher education where courses are delivered via Internet. It should be noted that studying as such is far from being "virtual". Students taking so-called virtual courses are doing "real" work to get their degrees, and educators preparing and teaching those courses spend plenty of "real" time in doing so. (Source: Wikipedia)

The following are the advantages of the virtual initiative:

- ODL believes in the motto of 'Universities without walls'. The virtual initiative sticks to this by providing the learners the learning environment on 7x24 basis
- Hypertexts provide links to relevant references and connected sources
- Media effects like sound, graphics, real or animated video contexts are readily available
- Blackboards, video conferencing on the internet etc make the virtual look real
- The learners get immediate feedback from the programme; they will also submit their assignments etc. on the digital drop box

It is noteworthy that EasyNow, the CEMCA initiative, has tried to incorporate all the salient features of virtual classroom within and gives the host university the power to organise their programmes in a highly sophisticated manner.

Summing up, we can say that there are three key concepts that highlight the significance of ODL, manifest as e-learning and virtual learning.

Accessibility

This has a social relevance as it talks of taking education to those who need but have been

deprived because of the constraints of time or money or due to geographical reasons. ODL is affordable education. It has wide reach and deep penetration. It does not only augment human resources in the society, it also brings out talents that had been lying hidden.

Quality Assurance

The use of the best material from across the globe and the use of ICT techniques that vouch for effective learning in the case of learners who are highly motivated and quality conscious and assures of better results. This is possible only through e-learning i.e. ODL as F2F learning has limitations in availability of resources.



Flexibility

Individualisation of learning has been one of the cherished goals of educationists as it allows every individual to progress the way they want. Though hard to achieve in the classroom setup, ODL allows flexibility in learning. Flexibility does not mean just the pace of learning, or the freedom of choice of the courses to the individual, it benefits the learners by a proper admixture of both distance learning and classroom teaching. They can make quick progress as individuals in asynchronous groups and develop the faculty of independent thinking; in a synchronous group they gain from collaborative learning.

EasyNow: Initiation and Implementation

Introduction: The Issues

Though most educational systems have now accepted globally the enriching impact of a wide range of ICT technologies and wish to integrate them at all levels of educational administration, they face problems of resources. Many an institutions find media support as prohibitive in cost. There is paucity of academics conversant with IC techniques, who can produce the courseware. Most teachers in the Commonwealth countries do not have exposure to the enormous growth in ICT tools. Self-training even on the part of the computer-savvy is a stupendous task as the field is vast and ever growing. EasyNow promises to make things happen as it allows for inexpensive production and quick but focused exposure to the developers.

The other problem is the availability of good educational opportunities for the vast majority of students in remote corners of the country. Even if more schools and colleges can be started, the quality of teaching may not improve unless they are given in-service orientation on a regular basis as knowledge is expanding exponentially and teachers do not have easy access to the expanding vista. This problem can mostly be overcome if quality materials are made available to them in multiple-media formats, which they will learn as they go through the process of teaching. EasyNow is a multiple media platform.

The third issue is pedagogical and addresses the problem of individual strategies, pace and ways of learning. Some respond well to oral deliveries, while others learn best by seeing. Slow learners need more time and repeated exposure, fast learners employ various skills. The multiple-media material caters to the need of all learners as it provides multiple avenues to various categories of learners.

Teachers and learners will be the immediate beneficiaries of the EasyNow training, as they will operate in an environment conducive to effective learning. Academic institutions administering ICT-efficient programmes will be the ultimate beneficiaries, as they can bring in quality enhancement. The consequent outcome is likely to contribute to the socio-economic development of

the society, as better learning naturally leads to better human resources development.

Aims and Objectives of EasyNow

The broad aim of EasyNow is to expand the scope of learning methods from the point of view of presentation and make innovative learning strategies through various modes of presentation available to the learners at large.

The specific aim of EasyNow is to assist enthusiastic and dynamic

academics take up the job of producing quality material that may provide them better job opportunities and academic leadership.

As academic excellence is reflected in knowledge flow from academic institutions to industries and other establishments through the experience gained by the learners, the objectives of EasyNow can be said to be to train ODL/OCL teachers in

- Selecting various admixtures of learner-teacher and learner-learner activities and interactions
- Choosing situations and illustrations that are appropriate to the learners
- Assessing students' level of learning and
- Applying methods of diversifying types of presentation of the course content

Components of Teaching

The basic components needed for any media related software are three -

- Text
- Audio
- Video

The ICT Action Plan of a university

- Staff Development
- Resource Mobilization
- Learners' Needs
- Resources Sharing &
- Partnerships
- Innovation & Creativity
- Sustainability

EasyNow
addresses them all!

Text

It is usually available on a softcopy, ready for printing books. It is good for archiving and allows for immediate corrections. It needs to be supplemented with A/V materials, the kind that the teacher uses in the classroom.

The primary aid is the chalkboard. The electronic classroom can use an electronic blackboard. Use of digital tablets is an effective and affordable alternative, as the learners can see the board work unhidden by the person writing. Or else the blackboard work can be captured on video that accompanies the text.

Audio

An audio programme is the replica of what the teacher says in the classroom by way of explanation or exposition. It can be recorded in a normally quiet room and attached to the text. Various other audio files can be planned that can supplement the main body of the text, such as comments from eminent scholars, excerpts from speeches or radio broadcasts, interviews and appropriate sound clips. These need to be captured and incorporated within the text.

Video

The video is an important and varied component of any media rich software for learning. It has many varieties such as stills, charts and diagrams, illustrations, maps; animations, real videos, movie clips etc. Charts can easily be made using any good office suite. Photos can be scanned and digital stills can be directly fed into the system. A lot of diagrams and illustrations can be had from NET sites that allow that allow free downloading. The host institution will need to have a digital still camera and a digital video camera for shooting specific objects or events. These are very moderately priced these days; they are user-friendly and affordable.

The Process of Development

Once the components are identified we need to go through the process of acquiring them and integrating all the components seamlessly into an integrated whole. The three phases involved in the process are capture, preparation and delivery.

Capture

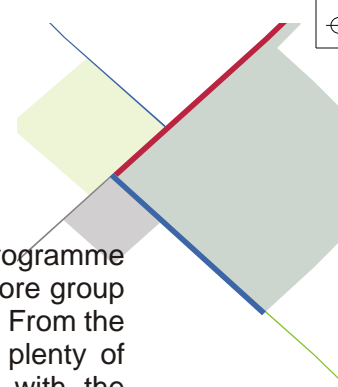
In the capture phase, the core group goes over the content of the base lesson, keeping in mind its objectives and targeted learning outcomes. It should envision the kind of audio-visual material needed in view of the learning strategies adopted. Then it plans to get ready all the A/V supplements in digital form for use in the presentation of the lesson. Both the acquisition of inputs from available sources and making using electronic devices such as cameras is called CAPTURE. All available methods and resource can be followed and utilised. All supporting material created by the teachers to deliver their lectures can also be utilised for preparing the learning kits. The sources available *in situ* are:

- Text of the lesson (paper copy)
- Board content, illustrations, charts, photographs (paper copy)
- Recording of the lesson on audio media (Live Classroom/ Studio/ offline)
- Text entered/scanned into computer media (electronic copy)
- Board content, illustrations entered/scanned into computer media (Electronic copy)
- Video recording of the lecture and all other graphic material that may be used for preparing the lessons

Preparation

The second phase in programme development is preparation, where all the resources collected are woven together as 'lessons' for various electronic or conventional media. The outcome of this phase can take the following forms -

- Lessons in the form of a Book form with printed material and illustrations
- Computer-based delivery on a media containing slide shows synchronised with audio narration
- Recording of lectures with video content on VCD/DVD accompanied by Text
- Core lessons accompanied by Streaming video on the internet



Delivery

This is the third phase of programme development. This is the quintessence of EasyNow which claims that the prepared lessons can be arranged in the form of programmes on different modes using different mediums. There can be more than 10 modes of delivery that cater to a wide range of students or by the same student at different times. When the teacher generates content in any one of input modes the system converts it into the other modes.

The various possibilities of the varied modes are as follows:

- Print based

Printed book with inbuilt graphics and CDs and VCDs

- Audio based

Printed book supported by Community Radio

Printed book with Digital Radio supported by POD casting of graphics

- Computer based

Offline CBT programme supported by printed exercises

On-campus networked programmes accompanied by face-to-face sessions (the Blended Mode)

Online programme on the NET with proper study support

The Virtual Classroom

Text-to-Speech programme on the computer for the visually handicapped

- Special groups

Advanced programme for the visually handicapped with Braille printout and Text-to-Speech



Depending upon the nature of the programme there could be other combinations the core group should decide the best method possible. From the point of view of the learner, there are plenty of choices depending upon their needs, with the result that they may not face a learning bottleneck at any point of time. The availability of the materials on various modes also ensures that no learner is deprived of knowledge, thus transforming the digital divide into digital dividend.

Induction into the System

CEMCA organises a five-day workshop for the host university or institution in order to impart training to 10 teachers from various disciplines. It would be possible to form a group of master trainers through the activities of the workshop such as mutual expectation sharing, pulse-taking on a daily basis, action planning and participatory evaluation of the procedures. The participants also gain by suggesting necessary modifications in the approach, content and conduct of the workshop. With the knowledge and experience gained they can train others in their institution.

CEMCA trains the core groups identified by the host university in the development of the programme during five days intensively. The core group comprises two or three academic staff for each subject of study, a programmer and a technical expert conversant with the techniques of ICT. The non-academic members of the group are generally advisory and need not work full time on the project. However, they need to work on technical problems and find solutions as necessary.

The group needs to have autonomy in the matter of execution and implementation because some of the crucial decisions cannot be left to bureaucratic judgment. It would be appropriate if the group reports to the Vice-Chancellor or the Dean of academic programmes or a select monitoring group.

The work of the group for the five-day period can include the following activities. The exact sequence of events and the order of the activities can vary according to the circumstances.

The Schedule of the Workshop

Day 1

Inauguration

General introduction to the programme to the

academic community at large with a view to talent searching and wider induction

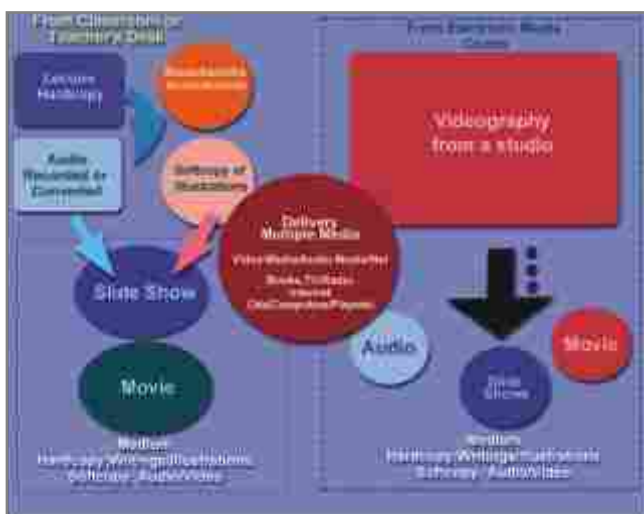
Identifying the core groups (about three or four for each workshop)

Identifying the task (the kit that each group is going to work on)

Preliminary task of introducing the multimedia components that the kits may comprise

Text conversion techniques and new text creation

Review of the infrastructural facilities preparatory to the three phases of programme development viz. capture, prepare and delivery.



Day 2 to 4

The goal is to learn the techniques of the three phases and prepare one lesson kit (lesson) that can be uploaded on the NET as a Demo.

Hands-on practice by respective groups in relation to the three phases of development

Audio recording and editing

Video recording and editing

Making slide shows and graphics

Text to Speech

Discussion on e-learning and blackboard

virtual classroom

Troubleshooting

Uploading the kits

In addition to the above major activities the participants of the workshop will have hands on practice in data compression, file conversion into various formats and using the various gadgets needed for capturing and preparing. They will also get hands on practice in the authoring programme on the EasyNow platform for effective delivery.

Day 3

Presenting the Demos on the NET

Discussion of the CEMCA representative with the university authorities and signing the MOU for future collaboration

Deciding the course of action for implementing the project

Concluding session

System Management

After the training the core group may start working on the development of the courseware with help from CEMCA. The host university can launch the programme after the initial part of the programme is ready with the provision that the courseware should get ready progressively as the programme continues, without any letup.

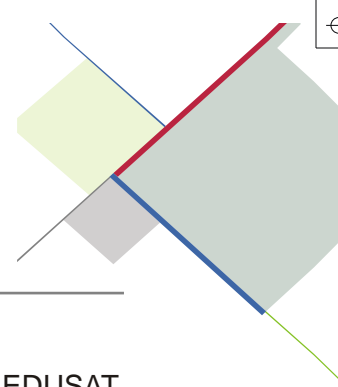
The core group should also become the resource persons for training further groups within the university.

The platform allows right now the development of course materials and contains inbuilt components for self-check exercises and assignment submission. The concepts of online and walk-in examinations may be taken up later if the need arises.

The university will have to make arrangements for actual lab work etc. on its own terms. IGNOU has entered into tie-ups with local colleges for practical work.

The universities can adopt the EasyNow platform for running various programmes such as formal degree programmes, training and extension and general awareness programmes and literacy programmes. CEMCA will appreciate if the institutions can run some programmes free of cost that contribute towards social welfare and human development.





Technical Details

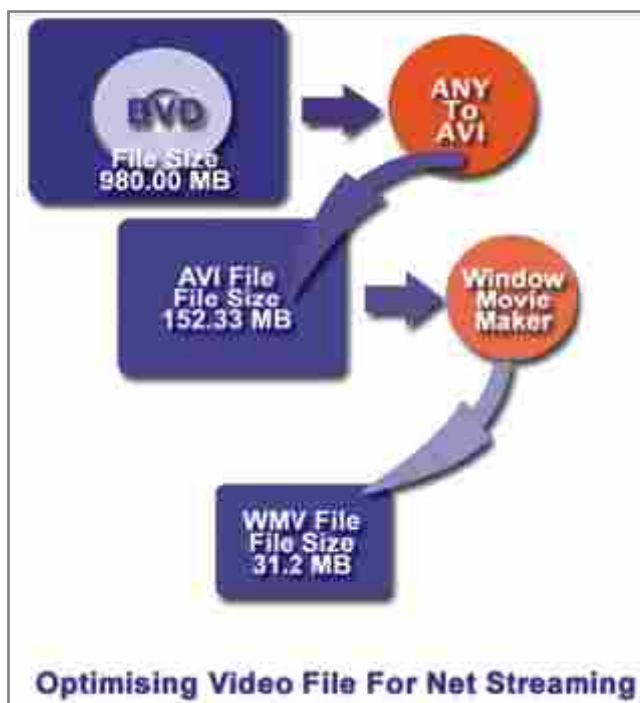
The Need and the Rationale

Though we have said that academics manning the development and delivery of programme on the EasyNow platform need not be experts in the area of ICT, we need to mention that a fair amount of knowledge of using computers and the internet is essential for anyone undergoing the training. The workshop has to concentrate on how to use the platform for successful implementation of the program rather than teaching the trainees how to use the mouse or create or open a file.

The technical knowledge to be imparted in the training will pertain and be limited to the use of the EasyNow platform for creation of the courseware and delivery thereof through various modes and electronic channels. The emphasis is on practical knowledge and hands-on practice rather than on theoretical aspects. We may liken it to the kind of knowledge the driver of a car is expected to have in order to keep it functioning properly.

They should be able to use different input devices that suits the media selected. Taking the case of media that are basically audio-based, there are three paths available – community radio, using digital format, digital radio broadcasts such as the

World Space or the channels using the EDUSAT, and podcasts on the internet. The softcopy of the audio texts can be used for the first two modes. We need to use compression techniques for podcasting. Let us see why we do it. Pods are audio material available on the internet that can be received by mobile receivers such as the iPOD or on MP3 players. This gives them the flexibility for learning. We need to compress the data for streaming effects. Uncompressed data takes



more time to download and interrupted reception cannot sustain the interest of the learner. Streaming is a process that quickens downloads, both audio and video, such as the continuous flow of streams, as the received data is uncompressed by the system and is buffered for continuous play.

Let us see how to do it. There are various file formats with different compression rates, like the WAV file, the MP3 file and the WMA file. They are changed into other formats using audio editing/compression programmes like Audacity and Wave Studio. The iPods allow the learner to download many hours of audio material on the system for use at appropriate times.

Similarly the trainees need to have knowledge of and practice in allied processes. Let us take the



case of the video formats. The stills or photos included in the window of the screen may be small as we need to accommodate many windows simultaneously on the desktop to give an integrated picture of the lesson. However, the learner might wish to magnify the illustration for better visual perception. Large magnification (full screen) may get blurred if proper formats are not used. In summary, each file format has properties of its own and we the developer needs to know which format is suitable for what kind of inputs. The popular formats for video formatting are

- Audio-Video Interleave (AVI)
- Windows Media Video (WMV)
- Movie Picture Experts Group (MPEG)

The workshop will guide the trainees in selecting the appropriate formats for different inputs in different modes, give them practice in file compression and format conversion, and tell them how to procure the software needed for these tasks and how to use them effectively for the task on hand.

The Infrastructure

The host institution may have to make provision for the following equipment if they are not already available with them. Any institution joining in the virtual campus initiative should have the equipment ready before the workshop.

Hardware

One **computer** with a minimum of 1GB RAM, 2 GB is preferable. It should have a 120 to 200 GB hard disk. It should have a broadband internet connection of a minimum of 256 KB speed. The sound card should be in working condition.

One **microphone** of a good quality for recording in the computer

One **scanner** for capturing graphics from print sources with a good Optical Character Reader (OCR) programme for capturing text

One **digital still camera** of at least 7 MP (megapixels) with a memory card of 4 GB

One **digital movie camera** of 3 MB or above and memory for video shooting of an hour (about 4GB)

One **digital tablet** that can capture blackboard work or handwritten texts drawings or writing characters; if the institution has an electronic chalkboard it is helpful.

A good quality **printer** is an additional advantage.

The following gadgets are optional and are needed only for specific groups.

Braille writer, costing about Rs. 20,000 (equivalent of \$500 in India)

Software

Any good **Office suite** that can be used for text editing, drawing, making bars and charts, presentation or still shows: most computers normally have such a programme.

Programme for compression like WINZIP

Programme for creating PDF files like Adobe Acrobat

The following are open-source software programme and can be freely downloaded.

Star Office as an office suite
<http://www.openoffice.org/>

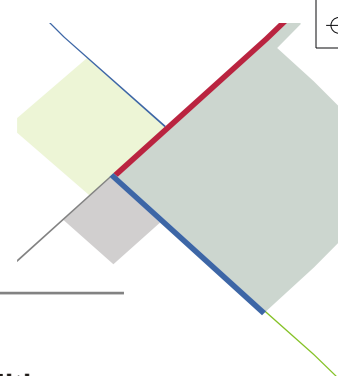
Audacity for audio editing and converting to MP3 files
<http://audacity.sourceforge.net/>

LAME mp3 Converter for MP3 conversion
<http://lame.sourceforge.net/links.php>

Photoshop type of open source product for picture creation can be downloaded from
<http://www.gimp.org/>

Window Movie Maker from Microsoft for movie and sound editing. <http://www.cnetdownload.com>

The software and hardware discussed so far are meant to perform the task of capturing digital information and for interrelating them for purposes of presentation. The major activity of the entire enterprise is the task of creating the delivery mechanisms. There is no specific software programme for this as the EasyNow platform is itself equipped to handle the job. It is freely available and downloadable. The course developers will have to use allied software for various conversions. The workshop will give them practice in specific programmes they may need for their work.



FAQs

From the point of view of the university authorities

- 1. Is it possible to adopt EasyNow to run an entire academic programme such as a master's degree programme?**

Yes, it is possible. Many a universities abroad have started their virtual campuses and are running academic programmes successfully on the internet. Not only does it allow delivery of materials to the learners, it can also be used for academic administration in matters of admissions, examinations and record keeping.

- 2. Is the programme not very expensive to produce or to run?**

Multimedia programmes are considered to be expensive, when the whole plethora of activities is outsourced. Technical personnel command a high price in the market. If academics are asked to produce their programmes internally the costs come down drastically, as academic software production does not need a high degree of sophistication.

- 3. How about the staff? Don't we need to hire a lot of highly skilled persons to run the programme?**

The core staff for preparing the software is internal. We would definitely need the technical staff for guidance, troubleshooting and occasional help.

- 4. How long is the gestation period for starting a programme? Do not the multimedia programmes take a long time to prepare?**

It is often misconceived and believed that multimedia programmes take a long time to produce. It may be true in the case of sophisticated animations or media-rich advertisements. Academic software is capable of immediate delivery, as it follows the principle of incremental building. We can start immediately with text and video capture of the classroom activity and keep on adding other inputs as and when ready. In fact, CEMCA has successfully demonstrated in the earlier workshops that teachers can produce a lesson with all media inputs in a couple of days.

- 5. What kind of infrastructural facilities are needed for preparing the software and conducting the delivery?**

The EasyNow enterprise does not demand investments in sophisticated recording studio or expensive equipment for editing etc. The CEMCA initiative on Community Radio stresses the point that it should be possible to operate from one's own environs.

From the point of view of the academics

- 6. The production of multimedia material is a highly skilled job. How can academics without technical knowledge achieve a fair degree of success in this area?**

Remember the DOS days of computing, when it took a lot of programming even to draw a straight line. Accomplishing very skilled jobs on the computer has literally become child's play these days. One just needs to follow the instructions carefully for proper execution. The trick lies in the fact that the application software provides the navigable paths. Similarly, in the case of EasyNow, the platform guides the author ahead. The will to achieve the target is the keyword, rather than the expertise in technical matters. Basic computer literacy should be sufficient technical knowledge to get inducted into EasyNow.

- 7. How can a small group of teachers deal with various subjects in a field that need specialisation? How can we assure quality of the materials in divergent fields in any academic discipline?**

That in fact is the plus point in ODL. It believes in tapping the best talents in the field for production of materials and sharing the knowledge created globally. COL was created with the very objective of unifying forces academically and fostering collaboration. CEMCA has been trying to build common resources and help resource sharing in Asia. If course developers procure authentic texts, adding media inputs can easily be managed with local talents.

8. How can a small group of teachers in the faculty provide academic support to a large number of students that is being promised in the implementation of EasyNow?

We say that a small group of dedicated teachers are enough for material production; that does not mean they can give academic support and guidance to thousands of students. The support staff should be appointed proportionately from the fees collected. However the core staff should look into this aspect of students' needs with a view to monitoring the programme and upgrading it periodically.

From the point of view of the learners

9. Do I need to own a computer to join the EasyNow programme?

EasyNow is a programme that has inputs to be used on computers. But it has not done away with the ubiquitous textbook. This is a multiple-media programme and the materials can be available on radio, educational channels, CDs and VCDs that one can view on home TV. An occasional visit to the computer café should fill the gaps, if any. Access to the NET is a essential in all cases.

10. What kinds of programmes are available on EasyNow and how do I register for any of them?

EasyNow is merely the gateway; the nature of the programme depends upon the service provider i.e. the university or organisation. Nonetheless, it is suitable for all kinds of programmes viz. formal and non-formal education, continuing education, extension services and training, and different kinds of literacy programmes. The university should be

contract for information on the courses available on a EasyNow, the process of a admission etc.

11. What do I do if get stuck while studying? Who do I contact for help and guidance? How do I meet my fellow students?

The multiple-media inputs and the use of ICT make study a pleasure as they guide you through the materials effortlessly. The hyperlinks in the study materials helps you navigate to related sites and reference sources. EasyNow has the provision for chat groups and blogs, where peer-group interaction is feasible. A batch of students is assigned to a distance learning facilitator (DLF), who liaises with the group on a regular basis. You may contact your DLF through e-mail, over the phone and personally if possible. EasyNow ensures that you have access to the resources on a 7x24 basis; it allows you to have regular contact with your guide. The Bulletin Board on the NET allows the learners to talk to each other creatively and 'publish' their ideas.

12. How do I get to interact with my DLF for advanced studies and research, if he/she lives far away from place of study?

ICT has made physical presence possible through devices like teleconferencing on the NET using webcams. That is why such an arrangement is called a 'virtual classroom'. You feel like you are in the classroom with the teacher and your fellow students. You can see how the teacher explains things on the blackboard, you can show him/her the draft of your report and discuss modifications thereon, and you can listen to the comments of your fellow students and react. You do not lose any of the classroom activities in a virtual classroom.

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Current Projects

1. Quality Assurance in Multimedia materials - in association with NASSCOM and NAAC
2. Easy Now
3. Science for Women's Health and Nutrition - a project catalysed and supported by RVPSP, DST, GOI
4. Regional consultations on Community Radio awareness - sponsored by Ministry of Information and Broadcasting GOI
5. SLIM 3- Self learning Instructional Multimedia Material - Capacity building for Open School Course writers

6. Multimedia material for Differently abled persons

7. Capacity Building in Electronic media - Radio and TV production

8. Technology Incubator - ODL through Satellite Radio

9. M&E workshop

CEMCA Publications

Usha V Reddi 2003 Educational Broadcasting in the Commonwealth

Usha V Reddi et al (Eds.) 2003 Educational Multimedia

Anita Dighe & Usha V Reddi 2005 Women's Literacy and ICT

Som Naidu 2006 E-Learning: A Guidebook of Principles, Procedures and Practices

Educomm Asia A Quarterly Newsletter from CEMCA



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