

PRIVATE UNIVERSITY

Prof. N. R. Dave*

1. Higher Education in Turmoil

Formal higher and professional education is in great flux in this country. On one hand, establishing national statutory councils, to prescribe norms and standards in order to monitor enforcement of the same, happened through legislation; while on the other hand, private initiative to shoulder the burden of establishing and running the institutes was made possible by the directions of the Apex Court. Empowerment of self-financing institutions in the matter of admissions and fees evidenced in the recent judgement of the Apex Court and reassertion of the same, time and again, by the subsequent judgements, is in fact logical extrapolation of the letter and the spirit of the first judgement. In the scheme of things, unfortunately, traditional 'controlling' authorities — Governments, Councils and others established by Law — find the erosion of their authorities and feel challenged. The articulation to justify their roles may be disguised in the jargon of social justice, concern for quality, exploitation, profiteering, and commercialization. Confrontation seems inevitable and tremors are likely

to persist for some years.

The turmoil in higher education is essentially triggered by the demands of good education, readiness of the direct beneficiaries to pay for it with the expectations to receive locally 'globally competitive education' and thus ensure easy mobility all over the world, fraught with hitherto unknown multifold opportunities within their reach. These are auspicious signs for establishing private universities, fully autonomous, flexible in mindset, accountable by commitment, competitive in quality, rich in infrastructure and transparent in governance — all focused on delivering real time relevant education for the opportunities of the next generation.

2. Quality in Autonomous Ambience

It is honestly believed by well meaning educationists that excellence in education is possible only in the environment of autonomy in the governance of institutions. Very foundation of a university rests on this. Our experience of universities, in general, has no doubt disillusioned us about the merits of autonomy. Firstly,

* Former Vice Chancellor, North Gujarat University.

for autonomy to succeed in a university, it is necessary to have the right kind of leadership at its helm of affairs all the time. In the absence of proper leadership, an autonomous institute like a university, degenerates faster and Gresham's law of values operates with a vengeance. It becomes progressively more difficult to arrest the degradation. Secondly, the present day university system works on collective wisdom, which is nothing less than *mediocre wisdom*, as the concerned people have no direct stakes in the system.

3. At whose Risks and Costs?

In the matter of stakes, one and only stakeholder, is the student, who is not only marginalized in the scheme of things, but also is, on the face of it, least concerned about receiving quality education. His immediate concern is to obtain a Degree. Though there have been several distinguished Vice Chancellors who left behind traditions of good governance and promotion of excellent education by encouraging ambience of pursuits of learning, it is possible for an ordinary person to be a Vice Chancellor and spend time, carry on for three to five years, with the same degree of indifference as of steel-frame bureaucrats who have the benefit of transience in posting and freedom from accountability of long term consequences of their earlier decision. The State funding does not entitle the state to be a stakeholder. Even if it is so, the Government of the day has hardly five-year horizon and the popular government always tries to be a populist government in taking measures to appease the target group of voters. It cannot be expected to envision long-term healthy

consequences and take harsh measures ultimately beneficial to the system.

4. The State and Higher Education

Relationship of the State with Higher Education needs to be understood in its historical perspective. In post-independence period, the State established several colleges and more particularly promoted proliferation of grant-in-aid colleges. This is reminiscent of mythical Vishwamitra-Menaka romance. The State had designs to have leverage on the affairs of Universities by proliferating grant-in-aid colleges at the state cost and at the same time provide visibility to its efforts of promoting higher education and reach out to the first generation learners climbing the stairs of higher education. So far so good. But the marginal political gains dwindled over the years and the financial burden progressively become too high to be sustained any longer. Around the time Shakuntala was to be born, Vishwamitra suddenly realized that his aim was the spiritual pursuit of acquiring Brahma-gnan and he, without any personal embarrassment, refused to shoulder the liability of child, the consequence of his romance. Likewise, it was in nineties that the State also woke up to reality that it has the constitutional obligation to promote, proliferate and sustain Primary Education. In order to take this U-turn, without political embarrassment, on the arena of higher education, articulation of bureaucrats, particularly in Planning Commission, in branding Higher Education as 'No-merit Good', provided useful plank. Just as Rishi Kanva was willing to be

the foster father to nurse Shakuntala, Indian society with its innumerable philanthropic individuals and trusts all over the country came forward to shoulder the responsibility of higher education. In early stages, the society has addressed to the need of Professional education – capital intensive and costly – offering value – added programmes. Over the years, it is expected that the Society will enlarge its scope to offer other programmes, which, though not value-added as such, have relevance to the overall growth of enlightened and cultured society in all walks of life.

5. University Degree

Our higher education system is tied down to some explicit legal prescriptions. For example, UGC Act : Section 22 :-

- (1) 'The right of conferring or granting degree shall be exercised only by a University established or incorporated by or under a Central Act, a Provincial Act or a State Act or an institution deemed to be a University under the Section 3 or an institution specially empowered by an Act of Parliament to confer or grant degrees.
- (2) Save as provided in Sub-Section (1), no person or authority shall confer, or grant, or hold himself or itself out as entitled to confer or grant any degree. Thus, because a Degree has great importance in the society and world of work, a University occupies the place of pride and monopoly in higher education. During the widespread national

debate in the process of formulation of National Policy on Education in eighties, the issue of de-linking of degrees from the jobs was discussed. One eminent educationist remarked with anguish:

“No policy initiative is called for. With dilution of degrees and increasing degradation of the value of the present-day degrees, the employers have substantially de-linked these degrees from jobs and have found alternative and effective ways of recruiting the staff.” The fact that the instrumentality of a Degree has still survived is due to strong social value of degrees, dependence of government jobs and public sector employment on degrees, and at the same time Degrees of Professional Education acquiring value, recognition and acceptance in India and abroad.

6. Private University

Emergence of a Private University needs to be perceived as the inevitable extrapolation of legal and political initiative of promoting private initiative in higher education rather than as an effort of building edifice of an alternative structure to rectify the shortcomings of State-Funded Universities.

The Model of a Private University has the potential to integrate

- (1) Direct and immediate stakes of all functionaries
- (2) Compulsion to perform and compete
- (3) Beneficiary's responsibility to pay for the education he/she receives

(4) Healthy Diversity

(5) International Linkages

It is understandable that there will be inevitable proliferation of private universities in the next decade. It took us pretty long time to appreciate that State and Central Universities, though autonomous, have structural rigidity and inherent limitations to perceive, much less pursue, innovative measures. An Autonomous College was sought to be the solution for the same, with Parent University awarding Degrees. On the basis of the track record of good performance and culture of accountability, some of these colleges have been rightly promoted to the status of Deemed-to-be-University, with the powers to award Degrees. Basically; a private university differs from state-funded university only in the matter of funding agency. In reality a private university ought to be imparted full administrative and financial autonomy. As it has to survive only on its performance, there is built-in accountability and demand-orientation of the programmes it offers. Quality and relevance will be the compulsive propellers of its working. A University will have, for the first time in its history, direct stakes in what it does. So far it has been working in the culture of 'government cost and students' stake': now it has built-in stake of its own.

7. UGC and Private Universities

Phenomenon of Chhattisgarh private universities was an aberration of exercising the powers of the State and has been very promptly set aright by the Apex court, thanks to the concern and efforts of Prof. Yash Pal.

UGC (Establishment of and

Maintenance of Standards in Private Universities) Regulations, 2003 clearly define the role and responsibility of UGC vis-a-vis Private Universities. These Regulations are positive, promotional and pertinent to enforcement of standards.

Firstly, it stresses the need to have adequate facilities for teaching, research, examination and extension services. Secondly, it recognises the role of the concerned statutory bodies, by explicitly mentioning: "3.4 A private University shall fulfill the minimum criteria in terms of programmes, faculty, infrastructure facilities, financial viability, etc., as laid down by the UGC and other concerned statutory bodies, such as AICTE". It is implied that in the matters where the Statutory Council has prescribed norms and standards the same shall prevail and for all other matters the UGC norms and standards shall be applicable. Thirdly, contrary to the belief in some quarters, Regulations allow for all levels of programmes, leading to a degree and/or a post-graduate degree/diploma. Thus a private university may be initially offering only programmes leading to a degree, and not necessarily along with programmes leading to a post-graduate degree/diploma. A private university now offering programmes leading to a degree only may later on offer post-graduate and doctoral programmes also. Fourthly, the most important aspect of the Regulations is built-in transparency in the process of UGC recognition of a private university. It provides that if a private university, after inspection and assessment, is found to have any deficiency and non-conformity with the relevant UGC Regulations, the same would be indicated to the University for rectification. Such transparency and

specificity are worth emulating by statutory councils also.

8 Nomenclature of Degrees

There has been total anarchy in nomenclature of degrees in last two decades. Only in recent years, the UGC came out with the updated list of degrees approved by it. Accordingly, the UGC also advised the universities in the country to rationalize the titles of the degrees being awarded by them and rename them, wherever possible, on the lines of nearest title available from the UGC list. Universities have also been advised that if a particular title has the justification for being retained, a proposal might be sent to the UGC justifying the retention and proposing the same for inclusion in the UGC list. It is also necessary that Statutory Councils should work in tandem with the UGC for uniformity in nomenclature. For example, all 32 titles of under-graduate degrees in technical programmes do not appear in the UGC list. Besides, there are still many titles of AICTE-approved programmes that are not listed even by the AICTE in its recent document. Some of these titles have dubious

diversification and merit. There are titles like Computer Science/Computer Engineering/ Computer Science and Engineering; Applied Electronics & Instrumentation/Instrumentation and Control Engineering/Automation and Robotics; Electronics and Communication Engineering / Electronics and Telecommunication/ Electronics Engineering; Industrial Engineering/Industrial Engineering and Management; Electrical Engineering/ Electrical & Electronics Engineering/ Electronics & Electrical Engineering; Bio-Medical Engineering/Bio-Medical Instrumentation. One wonders how the students and guardians perceive this multiplicity of similar titles, and how a discriminating employer can resolve, if any, differences in scope, content, depth, competence, knowledge and professional merits based on these look-alike nomenclatures. Private Universities are not permitted by the UGC to award a first degree and or a post-graduate degree/diploma, which are not specified by the UGC. This is very important provision and will perhaps arrest the undesirable variety of brands of degrees proliferating to lure the gullible guardians.



BRIDGING THE DIGITAL DIVIDE THROUGH eLEARNING

*Vivek Sawant**, *Dilip Tikle***, *Ambar Adhav****,
*Revati Deulgaonkar*****, *Danny Nagdev******

Introduction

Maharashtra Knowledge Corporation Limited (MKCL) is a public limited company promoted and established in 2001 by the Government of Maharashtra for the propagation of the new education paradigm based on universalization and integration of Information Technology in education and thereby bridging the Digital Divide.

The Government of Maharashtra and nine reputed Universities in Maharashtra have participated as the initial equity holders. The other equity-holders include educational institutions, industry, etc.

MKCL is a technology driven initiative to promote the learner autonomy centric new education paradigm. This paradigm is based on an innovative mode of delivery that seeks convergence of traditional classroom based learning, print media based and CD based self-learning and web-based collaborative eLearning. It has initiated a 3 year program to provide several eLearning services to about one million students learning in over 2000

institutions of higher and technical education in the state of Maharashtra and several million citizens of the state. These services shall also be offered to the community at large in partnership with the Universities, colleges and other institutions. For this purpose, MKCL is connecting these institutions on its broadband portal by creating the Network Access Centers at all these institutions with state-of-the-art computing facilities, broadband connectivity, rich interactive content and various value added eLearning and educational e-Governance services.

MKCL has, therefore, launched the initiative in design, development and delivery of eLearning, eGovernance and eEmpowerment technologies, solutions and services to its ever growing learner base.

MKCL's Software Development Division has designed, developed and successfully deployed state-of-the-art Course Development and Integration Framework, Learning Management System. Framework for Academic Administration through its large state-wide public-private partnership network,

**Managing Director, MKCL, **Vice President, Business Development, MKCL,*

****General Manager, Educational eGovernance, MKCL.,*

*****Program Coordinator, eLearning Solutions, MKCL,*

******Senior System Administrator, MKCL*

Higher Education Enterprise Frameworks such as Digital College™ and Digital University™, Portals for Online Admissions, Online Evaluation and Instant certification. These time tested and proven frameworks are comparable to the best ones in terms of architecture, performance, mass personalization of services and direct value addition to an existing base of million plus learners which is growing rapidly.

MKCL's Content Development Division uses the Course Development and Integration Framework for developing the inform and perform types of contents of various courses by seamlessly collaborating with remote partners and uses the Learning Management System to provide access to these courses to the authorized learners.

MKCL's Networking Division has set-up a 2500 location state-wide low cost Distributed Classroom with voice and data exchange capability, Content Distribution Network for caching and replication of incremental revisions in content at the proxy servers at 2500 Authorized Training Centers and Broadband VPN with 12 regional video conferencing facilities for high end training. It is also currently prototyping the statewide Knowledge Grid.

The long term mission objective of MKCL in order to effectively bridge the Digital Divide and the resulting Knowledge Divide is to promote Life Long Learning among all strata of our society as it is critical for survival, development and empowerment of individuals, communities and nations in the knowledge-based society in the 21st century.

Bridging the Digital Divide at the

grassroots, therefore, depends upon availability of low cost, high quality, high speed and widely accessible methodology for supporting life long learning. eLearning is perhaps the most effective, affordable and faster means of equitably enabling Life Long Learning and hence propagation of IT literacy leading to capability to use eLearning tools by the millions becomes a priority

It is in this context, eLearning does not remain a technology restricted only to the elite for access to advanced knowledge but becomes an emancipating tool for empowerment of the communities struggling to survive and seek livelihood sustainability.

MKCL, therefore, decided to propagate IT literacy by deploying eLearning on a large scale,

Massive eLearning Program for IT Literacy

As a first step in this direction, MKCL, therefore, launched a state-wide IT Literacy drive in the form of Maharashtra State Certificate in Information Technology Program (MS-CIT). Under the MS-CIT Program, MKCL offers a novel curriculum, excellent study material in the form of highly illustrated book with interesting exercises and activities and self-paced multimedia eLearning content with rich voice over in English as well as Marathi rendered through the Learning Management System. A state-of-the-art academic delivery mechanism using distributed classroom with voice and data leads to the supervised online examinations and instant e-Certification. This high quality and low-cost IT literacy program has emerged as the only choice of millions of learners and has become comparable to other

international benchmarks.

MS-CIT is being offered through the MKCL network of about 2500 authorized training centers spread over the metropolitan, urban, semi-urban and also the rural and tribal areas of the state. It involves about 10,000 teachers, 30,000 personal computers and 500 supervised online examination centers. This has emerged as the single largest network of the IT Training Centers in India. This network is established on the basis of the Public Private Partnership (PPP) strategy and through the involvement of hundreds of small and local educational enterprises and entrepreneurs. The coordination of this network is done through a paperless and fully web-based management framework designed and developed by MKCL.

The enrollment in last 3 years has gone beyond 1.5 million registered learners including students, teachers, professionals, government employees, housewives, senior citizens, etc.

We now briefly outline the various technologies being designed, developed and deployed for this large scale eLearning experiment to succeed.

I. Distributed Classroom

Knowledge society demands transmission of knowledge across all sectors of society breaking the geographical barriers. It aims to facilitate the best quality education and intellectually satisfying learning experience to every learner. The concept and technology of Distributed Classroom, therefore, is implemented so as to resolve the 'last mile' problem of good and quality education.

Objective is to make the best

teachers, domain experts, scholars from renowned educational institutions accessible to the learners distributed at many locations: including urban, semiurban, rural and tribal areas

Usually a distributed classroom requires high bandwidth for audio-video streaming, costly advanced technologies for audio-video-data transmission, archives and playback of multiple streams and shared workspace. However, MKCL has deployed two distinct modes of the distributed classroom which can be implemented depending upon the requirement, availability of technical infrastructure and financial strength of an organization.

1.1 Broadband VPN:

A state-of-art facility which uses two-way video conferencing to provide interactive classroom sessions. Following are the major building blocks of the facility:

- a) **Distributed classroom on Broadband:** 256 Kbps BSNL leased lines have been deployed at the following locations in Maharashtra: Pune (4 sites). Mumbai (2 sites). Akola, Beed, Jalgaon. Karad. Latur and Nagpur.
- b) **Video conferencing equipments:** High-end equipments like Porycom VSX 7000 Video Conferencing end points and Polycom MGC 50 Multi Conference Unit (At central location-BSNL Data Center) have been used to provide excellent video conferencing experience.

At present a single classroom can cater to a maximum of 25 remote

locations at 384 Kbps per location. This can be scaled up to 192 remote locations in future running on 384 Kbps each. Setup provides the facility to view eight remote locations on a single screen. This technology also supports Transcoding wherein remote locations with dissimilar bandwidth speeds can connect to a single classroom simultaneously. The same facility can be used for Voice Over IP, Streaming, Content Delivery Network and many other services supporting eLearning experience.

1.2 Distributed Classroom in Narrow band:

This Distributed Classroom mode utilizes existing Dial-up connectivity to offer two-way Audio and Data transmission amongst 2500 remote locations. Each location requires a minimum of 30 Kbps internet bandwidth. Technology provides Application Sharing and Collaboration effectively. Lecturer can present his/her PowerPoint presentations/ documents for teaching subject matter supported by his/her live audio. Facilities like text chat, user polls, surveys, feedback through emoticons, etc make the solution best utilised for bandwidth sensitive interaction.

The Distributed Classroom facilities have been integrated with MKCL's Learning Management System and with Digital College™ and Digital University™ frameworks and are being used for the regular delivery of various courses.

II Learning Management System: LMS

With a change in the focus from traditional teacher-centre teaching methodology to learner-centric

approach, learners' demands for an enjoyable, value adding, and personalized learning experience have become the driving force for technology development.

Learners' needs are wide spread starting from the authenticated and personalized access of the content to self evaluation for improvement. Learning Management System (LMS) developed by MKCL is a comprehensive system to facilitate learners' needs in his/her pre-learning, during learning and after learning stage.

MKCL LMS has several distinguishing features such as: Registration to access the course content, language selection, availability of course catalog, Table of Contents with color coding to indicate completed, just visited and not-completed part of the course specific to individual learner, voice over in selectable language, search facilities based on keywords and narration text, free navigation through the content, personalized user interface and settings.

While learning, the learner can use the features such as Bookmarks, My Notes, Glossary, Whiteboard and References. Using features such as Calendar, he/she can set personal learning path to complete the course.

For self assessment, learner can take Timed and un-timed tests, Practice and Performance tests on different types of questions which include Multiple choice single correct, Multiple choice multiple correct, Match the following, Fill in the blanks, Picture Identification, Jigsaw puzzle, Crosswords, Hotspots, Second Level Reasoning and Concept Map. With the help of graphical and numerical

representation of complete Performance Monitor, he/she can identify the weak areas for more practice.

In view of the important role a teacher or an instructor can play in the learning process, the MKCL LMS also supports special features which include Interaction with the tutor by using text messages and emails from within the system.

This is achieved by offering the LMS deployed on a CD as well as on the Local Area Network of the educational institution supported by Content caching and replication technology for frequent incremental revision of content on the proxy servers at the authorized training centers.

Also, as an integrated approach. Web based LMS technology is developed facilitating online assignment management of learners, access to distributed classroom sessions, participation in the live lectures and availability of complete performance record of the examinations along with special guidance from the remote tutor.

At present LAN based LMS is functional in more than 2500 Authorized Training Centers of MKCL across the state of Maharashtra. Over 15 lacs students in past 3 years enrolled for the MS-CIT, have learnt effectively using the eLearning Content empowered by this LMS.

III. Course Design and Integration Framework

Multidimensional, explorative and best quality eContent development is an outcome of a collaborative content creation process actively participated

by authors or content writers, researchers, graphics and multimedia developers, instructional designers, quality assessors and course administrators. However, huge amount of disseminated and multisourced content, needs to be structured, packaged and offered to the learners to meet the learning objectives set for every granule of the content. In short, in adherence to meet the international standards, the content needs to be managed so as to make it reusable and easily accessible.

The Course Design and Integration Framework (CDIF) is a web based framework for best managing the content in the form of Reusable Learning Objects (RLO), maintain a repository of RLOs tagged by metadata and allow the access to every RLO while designing a course.

The framework provides authenticated personal interfaces for course administrators, content writers, graphics designers, quality assessors, etc. This collaborative framework is best rated by the quality assessors with the functionality to preview the course, mechanism to lock and route the frame-by-frame feedback to concerned user. With the help of special interface for examiners, online examinations can be set based on die course structure.

Content integrated using the CDIF is then rendered using die LMS and presented to the learners.

CDIF is supported by SCORM standards for content management.

IV. ONLINE ASSIGNMENT MANAGEMENT SYSTEM

This is a collaborative framework, a component of Web Based LMS that

facilitates online assignment management of learners. It offers authenticated personal interfaces for learners, faculties, assistant faculties, evaluators, and administrators. This has been designed and developed with an integrated approach to enable the faculty to post assignments for the learners based on the course structure and the schedule defined using the CDIF. Learners can download, complete and then submit the assignments online for approval and feedback from the assistant faculty or local tutor which after approval are made available to the evaluators. The automated workflow in the system keeps track of every assignment of individual learner. Framework also offers the facility to the learners to get the assignments evaluated from best of the evaluators.

V. Online Examination System

Evaluation has a key role to play in the process of learning. It has hardly been the enjoyable experience in traditional teaching-learning methodologies. However, innovative eLearning solutions offer best of the features to test the abilities of learners to assimilate and accommodate the experiences and offer the learner an enriching experience. This is possible only by experimenting different types of questions based on individual's learning path

The comprehensive online evaluation framework designed and developed by MKCL offers functionalities to evaluators to frame variety of questions to test the learners. Different types of questions include Multiple choice single correct, Multiple choice multiple correct, Match the following, Fill in the blanks, Picture Identification, Jigsaw puzzle,

Crosswords, Hotspots, Second Level Reasoning and Concept Map.

By following international QTI standards to maintain the question repository, different question parameters are stored, viz: difficulty level, type, marks, and associated learning unit.

Continuous upgradation of the question repository enables the question paper setter to go for varied combinations while designing the paper structure. Also, framework supports random paper generation. Learner authentication features such as photograph and signature display on the screen are also best supported by the system

Some of the important distinguishing features include test attempt record, result, and crash and recovery system.

As an integrated approach, Web based LMS technology is developed facilitating access to distributed classroom sessions, participation in the live lectures, online assignment management of learners, and availability of complete performance record of the examinations along with special guidance from the remote tutor.

VI. Towards New Education Paradigm: Course ON "IT For Teachers" (ITT)

Information age and the knowledge based society, demand lifelong learning. In view of the changing definitions of learning, the traditional teaching methodologies need to change and undergo a paradigm shift.

Information technology, being the most effective and pervasive medium for lifelong learning, has a key role to

play for Teachers of the knowledge based society so as to satisfy the learners' demand.

The Maharashtra State Advance Certificate in Information Technology course for Teachers (IT for Teachers), therefore, is designed to aim at IT enabled teaching.

This unique course enables the teacher to use IT efficiently and effectively for all the possible roles, such as; a trainer, tutor, evaluator, instructional designer, academician, learning service provider, guide and mentor.

It aims at IT enablement of such 15 different roles of a teacher with an exposure to a variety of IT tools to Teach with a Difference.

Objective is to propagate new digital age teaching, learning and academic management in traditional schools and colleges. The course covers IT enabled teaching and learning methods, technologies and styles, use of software tools for effective evaluation and facilitation of learning services.

eInstructional Designing, eContent Development using Multimedia and animation and web designing, and eLearning Technologies modules are included in the course

Special module of eLearning Technologies offers hands on experience to the traditional teachers to use eLearning Technologies such as LMS, CDIF, Distributed Classroom, and online examination frameworks, etc.

Designed from the objective of developing resource persons to use eLearning tools and technologies effectively and efficiently, the course aims at eContent development, thereby

opening up new career avenues in the eLearning field.

Teaching methodology comprising of lectures delivered by experts using distributed classroom framework, hands on sessions in lab in presence of certified local teaching facilitators and online assessment of learners' assignments by remote assessors makes it a new age course in true sense.

VII. Digital University™

Digital University™ is a comprehensive software framework for a fully web-based management of the University and its network of affiliated colleges. It is seamlessly integrated with the Digital College™ and Digital Directorate software frameworks so as to offer electronic exchange of data and information between colleges, university and the Government in the form of digital objects.

Various Administrative services offered in the Digital University™ software framework

- Portal Definition Course, Student, Institute Definition
 - Admission
 - Examination
 - Migration
 - Affiliation
 - Planning and Development Establishment
 - Sports and Cultural Activities Management Finance and Accounts
 - Library Management
-

- Maintenance / Estate
- Placements
- Purchase and Inventory
- Public Relations Event Management
- International Cell Intellectual Property Rights (IPR)
- Publications Alumni
- Statistics

Various Academic services offered in the Digital University™ software framework

- Learning Management System
- Content Management System
- Web Authoring Tool
- Distributed Classroom Framework

Supporting Services:

IVRS - 24x7 (Interactive Voice Response System) for information related to admission, eligibility, examination, results etc. Email - Timely notices & alerts. Short Messaging Services - Alerts, short notices, updates through SMS gateway on mobile On the web -Facility to download and print various documents such as; Acknowledgement letter. Discrepancy letter. Registration Cards, Admit Cards (Hall Ticket) Status, schedules, updates, alerts and notices. Online Messaging system - Facilitates mailing and communication services between various University departments/ offices/ affiliated colleges/ recognized institutions as well as acceptance of grievances, feedbacks, suggestions and

information of redressal, Call Center Support, etc.

The deployment of this framework has begun in a few Universities and the results are very encouraging in terms of evoking interest amongst other Universities to join.

VIII. Digital College™

Digital College™ is software framework mapped on functionalities of a typical "Brick & Mortar" college, reengineered to offer, set of innovative services to learners, teachers, management and external entities that interact with the college, utilizing a combination of internet and intranet technologies

Administrative Services Offered in the Digital College™ Software Framework

- Admission Eligibility
- Scholarships/Freeships, Concessions Applying for University Examination
- Library Management, Academic and Administrative Planning
- Co-curricular and Extra-curricular activities, Purchase and inventory
- Establishment Financial Management
- Quality Management Placement and Industrial Training
- Maintenance of Student Relationship Management

Academic Services offered in Digital College™

- LMS: Facility to Authenticate the user then Authorize the learner to access the content and keep Account of the usage of the learning resources Availability of content in the form of Interactive Digital Content
- Pre-stored audio-video lectures recorded by expert faculties
- Facility to participate in a Live lecture through Distributed Classrooms
- Active participation in 'Group Discussion Forum'
- Customized adaptive evaluation / testing
- Access to digital question bank
- Personalized feedback on performance
- Content Management System that offers Creation of Knowledge and information repository - Authoring and publishing Digital Content
- Facility of fast and efficient transfer of content from one location to the other using the content distribution network (CDN)
- Delivery of live lecture through Distributed Classroom
- Recording and storing audio - Video lectures for streaming
- Access to digital libraries for research
- Knowledge sharing and exchange by online Interaction with academic peers, seek their

opinion and feedback

IX. Digital Directorate

Digital Directorate is a comprehensive software framework for Directorate of Education to manage the workflow automation on a state-wide scale for improving efficiency and effectiveness of the Directorate. It is seamlessly integrated with the Digital College™ and Digital University™ software frameworks so as to offer electronic exchange of data and information between Colleges, University and Department of education in the form of digital objects

Various Services Offered in the Digital Directorate Software Framework

- Portal for the Directorate File Tracking System .
 - Consolidated budget Grant, Claim by college and University
 - Sanction Grant, Grant Disbursement
 - Budget revision, Expense Appropriation
 - Loan / Advances application Approval / Recovery of Loan / Advances applications
 - PF Processing, Pension Processing
 - Leave and Time Management, Human Resource Management
 - Court Cases registrations and tracking Application/ Approval of reimbursement of Medical. LTC, traveling expenses
-

- Application for career advancements, Work Load assessment
- Application/ Approval/ Disbursement of scholarship Statistical Information - colleges, universities, courses, enrollments, teaching-non teaching staff information, concessions etc.

Supporting services:

Online Messaging system - Facilitates mailing and communication services between various Joint Directorate offices. Universities, and colleges as well as acceptance of grievances, feedbacks, suggestions and information of redressal etc.

X. Online admission junction

After a careful analysis of various admission systems, MKCL decided to completely reengineer the traditional process of admission in the overall interest of the candidates by exploiting the advances in web technology. Main objective is to facilitate the candidates by cutting down their costs and avoiding delays, anxiety and inconvenience. The entire process of application for registration and admission was brought on a website on Internet so that candidates can apply from anywhere and anytime.

Mass Personalization: The website specially designed for this purpose contains all the information and rules about the courses including the syllabus, eligibility conditions, fee structure, required documents, due dates, etc. However, the software hosted on this website for filling in the Application Form on Internet has been

so designed that the candidate is presented with a step-by-step and guided process to fill in the form. The next piece of information requested from him is based on online processing of his previous entries and interpretation and applicability of various rules to his specific case. Thus, the candidate gets a feel that the Application Form is, as if, specially designed for him or personalized for him. As this is simultaneously applicable to a large number of candidates, the application process gets transformed from a generalized faceless process to a mass personalized service suited to the real needs felt by the candidates.

Supporting Services:

IVRS - 24x7 Interactive Voice Response System for information related to admission, eligibility, examination, results etc. Email - Timely notices & alerts. Short Messaging Services - Alerts, short notices, updates through SMS gateway on mobile On the web - Facility to download and print various documents such as; Acknowledgement letter. Discrepancy letter. Registration Cards, Admit Cards (Hall Ticket) Status, schedules, updates, alerts and notices. Online Messaging system - Facilitates mailing and communication services between various University departments/ offices/ affiliated colleges/ recognized institutions as well as acceptance of grievances, feedbacks, suggestions and information of redressal. Call Center Support

Admission junction is implemented in. University of Pune - Admission to about 70 courses including External courses and the Post Graduate

courses.

Directorate of Higher Education -
B. Ed admissions Directorate of
Technical Education - Admission to;
MBA/MMS, Bachelor of Engineering,
Architecture, Pharmacy Department of
Biotechnology, New Delhi – PHd
admissions

Conclusion

MKCL is thus attempting to create and propagate a new education paradigm by using eLearning and other IT tools so as to initiate educational transformation appropriate to the Digital Age. The main transformative agenda of bridging the Digital Divide and promoting life long learning in all strata of society is unfolding through the development and exploitation of low cost and high quality eLearning technologies thereby creating a case study on a formidable scale for establishing wider applicability of

eLearning beyond corporate world and advanced studies and research.

Acronyms :

MKCL : Maharashtra Knowledge Corp. Ltd.

MSCIT : Maharashtra State Certificate in IT

PPP : Public Private Partnership

LMS : Learning Management Systemes

LAN : Large Area Network

CDIF : Course Design and Intergation Framework

IIT : IT for Teachers

IVRS : Interactive Voice Response System.





With Best Wishes

For the 75th issue of
the Journal of Engineering Education

Prof. Y.S. SANE

2 Sneh Classics, 7/1 Erandawana,
Joshi Path, Pune - 411 004
Tel: 020 - 25468085

