Creation of E-Learning Tools for Knowledge Management

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Abstract

This study discusses about the creation of E-Learning tools for the knowledge management. The Uses of e-learning applications can improve the level of higher education, literacy and economic and social development in under developed and developing countries. Management is the process of planning, organizing, directing and controlling to achieve specific goals. Two other important functions of management are innovation and representation. It is a discipline both science and art. But its principles are of universal application.

Keywords

E-Learning; Web Portal; Knowledge Management
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INTRODUCTION

E- Learning materials are growing very popular in the modern world of digitization. All e- learning materials compete with each other in designs and also on cost factor. The way of presenting information is very important in the digitalized world.

E-LEARNING INITIATIVES IN INDIAN EDUCATION

With the tremendous benefits and increasing success of e-learning, it is but natural to ask the question, can e-learning render the traditional LIS education obsolete? However, thinking rationally, one has to answer negatively to this question. The traditional LIS education provides a strong knowledge base to the potential professional. It develops in him the most basic library management skill—cataloguing, classification, indexing—broadly referred to as knowledge organisation skills. The traditional LIS education also fulfills one of the basic objectives of education, i.e., to develop an attitude for the profession. To get all these advantages the traditional LIS education is a must and should be of minimum two years duration. Does this means that e-learning is not suitable for imparting LIS education!

Uses of e-learning applications can improve the level of higher education, literacy and economic and social development in under developed and developing countries. Indian government helps and always given preference to the use of ICT as means of mass education.CEC (Consortium for Educational Commission) EDUSAT Network is engaged in educating students through the SITs installed at various colleges, Academic Staff colleges and universities.

e-education: e-Learning applications and processes include web-based learning, computer-based learning, virtual education opportunities and digital collaboration.

e-content : This is the digital content which could be transmitted over the computer network into the digital content in varied subject categories.

Electronic media Research Centre: Media Centres have more than 500 trained manpower & state of the art equipment and the largest repository of Educational Video programmes being produced by its Media Centres, numbering more than

20,000.Totally having 22 media centres across the country.

Vyas Higher Educational Channel: CEC has established and is running an exclusive 24X7 CEC-UGC Higher Education Satellite Channel of MHRD called Vyas channel.

E-Knowledge Resources: The Digital Media Library at CEC is a Central Repository of all the Educational Video Programmes produced by the Educational Multimedia Research Centres set up by UGC in the Universities and Institutions of Higher Education across the country.

Enrichment Programmes: CEC has created a rich and vast repository of such programmes in the areas of humanities, art, culture, language and literature etc depicting the rich legacy spread throughout the length and breadth of our country. The EDUSAT conducted the following enrichment programme.

a) University Video Course Lectures
b) e-Contents on Under Graduate Subjects
c) Video programmes on Under Graduate Subjects
d) LOR's (Learning Object Repositories)
e) Learning Management System
f)

Netvarsity: The country's fi rst online educational enterprise also came with the private initiative, when the National Institute of Information Technology (NIIT Limited) started Netvarsity in 1996."A common platform for all NIIT passouts and current students…." "Perfect stage to share tech-tips, discuss job opportunities, form buddy-groups, associations...." "Crossing milestones…with NIITians who have made it big & carried the name of NIIT forward!".

Teaching shoppe: After what NIIT started in 90s some other private firms came in to the market with a new concept to open up Teaching shoppe (TShopee) for the benefit in the field of school level education and for preparing students for competitive examinations like the medical and engineering entrance tests.

NTFITSD: National Task Force on Information Technology and Software Development (NTFITSD) constituted by the Prime Minister of India in 1998. The Task Force report presents the master plan that India has in place as a long term policy for capacity building of institutions, human resource development in IT related areas, and use of ICTs in education.

IGNOU - Virtual Campus Initiatives (VCI): The Indira Gandhi National Open University (IGNOU) responded to the recommendations of the Task Force with its Virtual Campus Initiatives (VCI) in 1999. Since then a number of such initiatives are in operation in the country.

Electronics Engineering Diploma Programme (EEDP): At the Yashwantrao Chavan Maharastra Open University (YCMOU) e-learning is used as a learner support mechanism especially for its Electronics Engineering Diploma Programme (EEDP). Students use a discussion forum to discuss concepts and clarify doubts.

e-PG Pathshala: The MHRD, under its National Mission on Education through ICT (NME-ICT), has assigned work to the UGC for development of e-content in 71 subjects at postgraduate level. The content and its quality is the key component of education system. High quality, curriculumbased, interactive content in different subjects across all disciplines of social sciences, arts, fi ne arts & humanities, natural & mathematical sciences, linguistics and languages is being developed under this initiative named e-PG Pathshala.

NASSCOM: Established NASSCOM Foundation in 2001. As an offshoot of the industry body-NASSCOM, the Foundation took the role of consolidating industry's efforts, researching in the space of Information and Communication Technologies for Development (ICT4D) and channelizing the support of member of companies for social development.

E-Learning Tools for Information Knowledge Management

There are many tools available for information Management and Knowledge Management. Such as

- Iigo
- HootSuite
- iGoogle
- iTunes
- Mindmeister
- Quora
- Scoopit
- Screenr
- Slideshare
- WordPress

DEVELOPMENT OF e-LEARNING MATERIAL

The development of an e-learning material includes the following factor

1 Collection of Information
2 Designing the material (Way of presenting)

Technology that accelerates learning. The methodology of learning information varies from person to another. The level of learner and technologies that accelerate learning are shown in Table 1.

Table 1: Level of Learner and Technologies that Accelerate Learning

S. No	Level of the Learner	Technologies that accelerate learning
1	Few months	Intelligent Toys
2	Pre- School	Game – Based Training
3	Early years	Social Collaboration and filtering, Interactive e-Books
4	High School	Increased Community communication Digital libraries, Student Controlled Interfaces.
5	College and Life Long	Computer supported Collaborative work

A prototype of an e-learning material is designed and developed for the subject Management. The Opening screen of the e-learning suite is shown in Figure1.

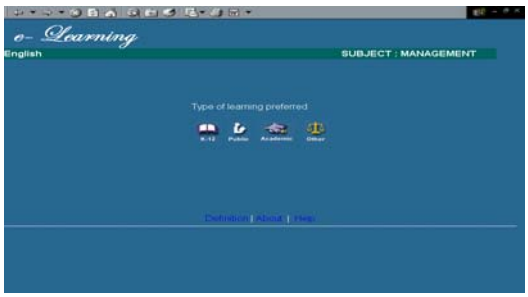


Fig.1 Opening screen of an e-learning material

From the opening screen it can be seen that the e-learning suite is developed for the four type of category viz K-12, Public, Academic and others. The type of learning thus a user preferred can be selected in this opening screen.

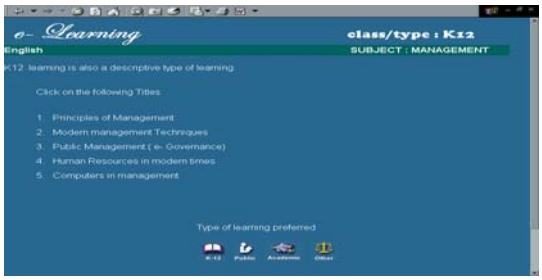


Fig.2. Screen when K-12 is selected from the opening screen

The later screen gives the details of the various subjects in *Management* from which the learner/user can select one of them to learn. At these stage the user has the option of changing the type of learning by selecting the option shown in the bottom of the screen. Figure 3 shows the screen that lists the various Headings when the "*principles of Management"* is selected from the titles.

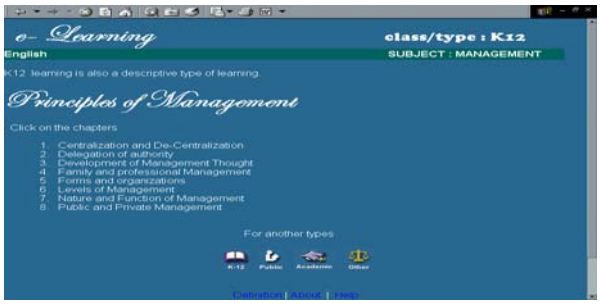


Fig.3 Various Headings in Principles of Management

When the headings where selected from the lists the corresponding screen is displayed. Figure 4 shows when Development of Management thought is selected.

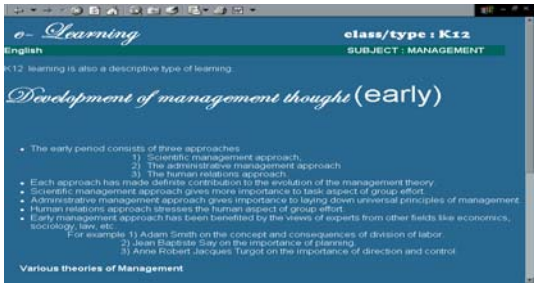


Fig. 4 Development of management thought (early) learning screen

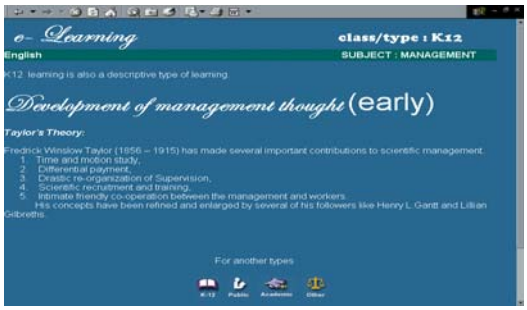


Fig. 5 Taylor's theory screen on K-12 type of learning

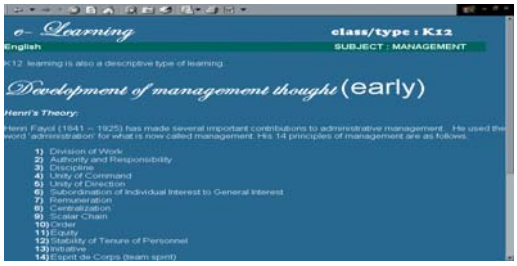


Fig.6 Henri's theory screen in K-12 type of learning

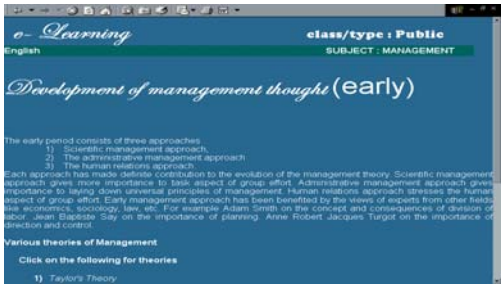


Fig.7.Development of Management thought (early) screen on Public of learning

DIFFERENT BETWEEN K-12 TYPE AND PUBLIC TYPE

In order to show the difference of content in type of learning, a particular topic screen is shown in K-12 type education and Public type education. It can be seen below the two different screen views.

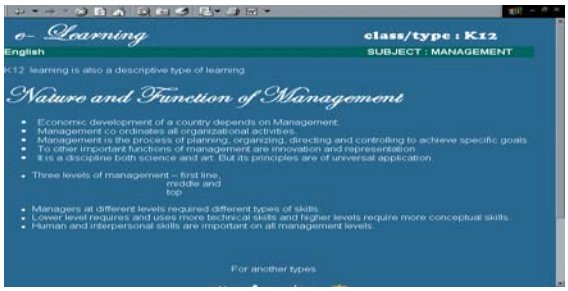


Fig.8 Nature and Function of Management screen on K-12 learning



Fig.9 Nature and Function of Management on Public of learning



Fig.10 Definition screen on e-learning

The material used in development of sample e-Learning Material

Economic development of a country depends on Management. Management co ordinates all organizational activities. Management is the process of planning, organizing, directing and controlling to achieve specific goals. Two other important functions of management are innovation and representation. It is a discipline both science and art. But its principles are of universal application. Three levels of management – first line, middle and top Managers at different levels require different types of skills. Lower level requires and uses more technical skills and higher levels require more conceptual skills. Human and

interpersonal skills are important on all management levels.

Development of management thought (early)

History of management thoughts can be divided into two periods: early and modern. The early period consists of three approaches, viz. the scientific management approach, the administrative management approach and the human relations approach. Each approach has made definite contribution to the evolution of the management theory. Scientific management approach gives more importance to task aspect of group effort. Administrative management approach gives importance to laying down universal principles of management. Human relations approach stresses the human aspect of group effort. Early management approach has been benefited by the views of experts from other fields like economics, sociology, law, etc. For example Adam Smith on the concept and consequences of division of labor. Jean Baptiste Say on the importance of planning. Anne Robert Jacques Turgot on the importance of direction and control.

Taylor's Theory

Fredrick Winslow Taylor (1856 – 1915) has made several important contributions to scientific management. Some of these are:

1 Time and motion study,
2 Differential payment,
3 Drastic re-organization of Supervision,
4 Scientific recruitment and training,
5 Intimate friendly co-operation between the management and workers.

His concepts have been refined and enlarged by several of his followers like Henry L.Gantt and Lillian Gilbreths. Henri Fayol (1841 – 1925) has made several important contributions to administrative management. He used the word 'administration' for what is now called management. His 14 principles of management are as follows:

- Division of Work
- Authority and Responsibility
- Discipline
- Unity of Command
- Unity of Direction
- Subordination of Individual Interest to General Interest
- Remuneration
- Centralisation
- Scalar Chain
- Order
- Equity
- Stability of Tenure of Personnel
- Esprit de Corps (team spirit)

Prof. Elton Mayo's research and findings have contributed to the Human Relations Movement. Essentially these have evolved into the present day principles of "people should understand people".

Development of management thought (modern)

Modern period consists of four approaches: behavioral, management science, systems, and contingency approach.The Behavioral approach is evolved version of the human relations approach to management. Specific contributions have been made to this approach by Abraham Maslow, Douglas McGregor, Mary Parker Follett, Kurt Lewin, Chester Barnard, George Homans, Chris Argyris, Rensis Linkert, and Warren Benis. These 'behavioral scientists' have greatly helped in understanding organizational behavior. The Management Science approach is also called Quantitative Approach. Operations Research works of the present day approximately follow this method for solutions to problems.

Systems approach has been contributed among others by Chester Barnard, George Homans, Philip Selznick and Herbert Simon. Main idea of this approach is 'holism' i.e no part of the system can be accurately analysed and understood apart from the whole system. Contingency Approach also tries to integrate the various schools of management thought. This system suggests the managers to develop a sort of situational sensitivity and practical selectivity because results differ because situations differ. Harold Koontz has commented multiplicity of approaches as "The management theory jungle". Efforts have successfully been made to integrate the various view points and to synthesize the various fragmented approaches on management. Effectively the systems approach and the contingency approach are efforts towards such integration.

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