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Study of Web Content Management System on Web Application

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ABSTRACT

An organization has a website on internet or intranet. It has grown organically over time and while it is very useful, it is far from perfection. Much of the content is out-of-date or inaccurate, it's hard to find things, updating the site is complex, and the appearance is becoming outdated. What was on the site last week, or last year? One can't say. Thankfully, these problems are what a Distributed web content management system is specifically designed to solve.

Beyond these, the greatest benefit the Distributed Web CMS can provide is to support your business goals and strategies. For example, the Distributed Web CMS can help to improve sales, increase user satisfaction, or assist in communicating with the public. The open source community has produced a number of useful, high quality Web content management systems which presents an opportunity to deliver tailored content management solutions without the high licensing or management fees associated with commercially-licensed or hosted software. A more practical approach is to match your needs to a common business problem that others have solved using open source software and engage with the community to learn about their experiences in implementing the solution.

1. Introduction

Three factors such as explosion of unstructured data, the need to manage content in a better way and the internetworking and collaboration within and between the enterprises drive the need for distributed content management solutions. Distributed content management systems address the need to access content wherever it resides, produce content and maintain greater control over the produced content, and collaborate efficiently by sharing data in real-time within a distributed network of stakeholders.

Organizations can deploy the Distributed content management solutions to share real-time information across geographically dispersed knowledge workers. The Distributed content management solutions form the backbone of any platform that requires real-time, efficient information sharing, as it provides a virtual content repository without distracting from the strengths of other process-dependent systems. Distributed content management solutions complement enterprise portal solutions, which are less affected by wider e-business processes. Long term Distributed content management solutions can be designed to complement supply chain management, customer relationship management, and e-commerce solutions.

Implementing web content management (WCM) is not only crucial to maintain the quality of information on the website; it can provide significant efficiency, productivity and cost reduction benefits.

Organizations of all types, commercial, government, educational, and non-profit entities, create a lot of content. Increasingly it is desirable to retain and manage this information as an information asset for possible reuse. Content can be anything from complex structured documents, to simpler messages, correspondence, business documents, transactions, emails, and the many other documents that workers create, share, transmit and archive. If an organization can manage their information assets in a meaningful way, that content can provide financial benefits and therefore, its value increases.

Content management systems are relatively new in the market and while many are still not familiar with them, they have the potential to dramatically simplify the maintenance of both websites and intranets.

Benefits of online administration

This is all the more significant as your business comes to depend on your website as a communication channel. The WebBiz CMS handles all the technical details, permitting anyone you authorize to update and manage the site. That way, any of your employees can help to keep your website updated, instead of it being limited to just one person (you). The CMS will help you to know who is doing what, eliminating potential confusion and saving valuable time. You even have the option to make sure that each employee can only update the sections of the site that they are responsible for.

The purpose of CMS's Data Administration (DA) web site is to guide the reader through the creation, utilization, and maintenance of CMS's data resources. Stepwise procedures, guidelines and CMS data standards are provided to data analysts performing data modeling tasks for new software development projects that are crafting new CMS data and reusing existing CMS data.

Central Data Administration

Data Administration is:

- Guiding the creation and monitoring the usage of data and information as vital agency assets

- Promulgating agency standards, procedures and guidelines related to data names and definitions
- Maintaining the inventory of Agency data assets
- Facilitating understanding of the meaning, accuracy and timeliness of data assets
- Promoting the reuse of standardized data names, definitions, elements and values

CMS Central Data Administration team provides the following services in support of agency's data management and data utilization objectives:

- Support Project development throughout the agency by:
  - Reviewing and Approval of Logical Data models during the requirement analysis phase.
- Validating Naming Convention compliance in Logical Data Model and first-cut Physical Data Model during development phase.
- Participate in the development of data governance processes and procedures.
- Develop and/or support existing data change request management processes.
- Publish standardized data naming conventions automated tools for enforcement of naming standards.
- Steward and distribute an Enterprise Data Model (EDM) containing common and reusable data objects as well as standardized data modeling templates for jump-starting new software development projects or re-engineering legacy applications.
- Administration and maintenance of Enterprise Metadata repository. The current repository includes but is not limited to Record Information Facility (RIF) metadata for the National Claim History (NCH) and National Medicare Utilization Database (NMUD).
- Data and impact analysis services in conjunction with new and ongoing application development efforts.
- Demonstration of source to target data lineage among systems and objects.

Types of Web CMS

While there are many website content management systems available, they all fall under two main types: **Premade Content Management Systems** or **Custom Content Management Systems**.

The most popular type of website content management systems are premade or **open source CMS**. Some of the more well-known open source content management systems include: Drupal, Joomla! and Word Press. Just because premade CMS are the most commonly used does not make them the best type of CMS. Open source CMS are generally a lot cheaper than custom CMS for a few reasons: the code is typically free and the options available are limited.

Open source CMS are put together by many developers all over the world. That means that no one knows all of the code that makes the CMS function, making it harder to customize anything. Having been built by many developers also means that there is a lot of extra code to make the CMS function. Extra code on the front end of a website can hurt your website's search engine ranking. You want your website pages to have as little code as possible and **premade CMS** don't allow for that.

Custom content management systems are not used nearly as often as premade CMS, but they are the only CMS used by WebDuck Designs. **Custom CMS** are likely to cost more than premade CMS, but come with a lot of benefits like: being scalable, allowing for unlimited options and function using as little code as possible.

WebDuck Designs' **custom website admin panels** are built 100% in house, which means that we know every inch of the code. Unlike premade CMS you are not stuck within the restraints of the programming, we are able to add on nearly any functionality and as many different options as needed. Since all of the code for our custom admin panel is coded in house we are able to add and modify functionality with as little code as possible. Less code on each page of a website allows for a better code to content ratio, giving it a better chance of showing up high in the search engines.

What does a Content Management System (CMS) costs? What are the fees for CMS?

Prices for website content management systems vary based on a number of different factors including: the **type of CMS**, the functionality and options needed, and the experience of the website company building the CMS. Contact the experienced programmers at WebDuck Designs to get a quote for your website and website CMS.

Towards Understanding Web Applications in Totality

A web application is an application that is accessed over a network such as the Internet or an intranet. The term may also mean a computer software application that is coded in a browser-supported language (such as JavaScript, combined with a browser-rendered markup language like HTML) and reliant on a common web browser to render the application executable. Web applications are popular due to the ubiquity of web browsers, and the convenience of using a web browser as a client, sometimes called a thin client. The ability to update and maintain web applications without distributing and installing software on potentially thousands of client computers is a key reason for their popularity, as is the inherent support for cross-platform compatibility. Common web applications include webmail, online retail sales, online auctions, wikis and many other functions.

In earlier computing models, e.g. in client-server, the load for the application was shared between code on the server and code installed on each client locally. In other words, an application had its own client program which served as its user interface and had to be separately installed on each user's personal computer. An upgrade to the server-side code of the application would typically also require an upgrade to the client-

side code installed on each user workstation, adding to the support cost and decreasing productivity. In contrast, web applications use web documents written in a standard format such as HTML and JavaScript, which are supported by a variety of web browsers. Web applications can be considered as a specific variant of client-server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as Http. Client web software update may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application.

In the early days of the Web each individual web page was delivered to the client as a static document, but the sequence of pages could provide an interactive experience, as user input is returned through web form elements embedded in the page markup. In 1995 Netscape introduced a client-side scripting language called JavaScript allowing programmers to add some dynamic elements to the user interface that ran on the client side. So instead of sending data to the server in order to generate an entire web page, the embedded scripts of the downloaded page can perform various tasks such as input validation or showing/hiding parts of the page. In 1996, Macromedia introduced Flash, a vector animation player that could be added to browsers as a plug-in to embed animations on the web pages. It allowed the use of a scripting language to program interactions on the client side with no need to communicate with the server. In 1999, the "web application" concept was introduced in the Java language in the Servlet Specification version 2.2. [2.1]. At that time both JavaScript and XML had already been developed, but Ajax had still not yet been coined and the XML Http Request object had only been recently introduced on Internet Explorer 5 as an ActiveX object. In 2005, the term Ajax was coined, and applications like Gmail started to make their client sides more and more interactive. A web page script is able to contact the server for storing/retrieving data without downloading an entire web page. In 2011, HTML5 was created, which provides graphic and multimedia capabilities without the need of client side plugins. HTML5 also enriched the semantic content of documents. The APIs and document object model (DOM) are no longer afterthoughts, but are fundamental parts of the HTML5 specification. WebGL API paved the way for advanced 3D graphics based on HTML5 canvas and JavaScript language. These have significant importance in creating truly platform and browser independent rich web applications.

Interface

Through Java, JavaScript, DHTML, Flash, Silverlight and other technologies, application-specific methods such as drawing on the screen, playing audio, and access to the keyboard and mouse are all possible. Many services have worked to combine all of these into a more familiar interface that adopts the appearance of an operating system. General purpose techniques such as drag and drop are also supported by these technologies. Web developers often use client-side scripting to add functionality, especially to create an interactive experience that does not require page reloading. Recently, technologies have been developed to coordinate client-side scripting with server-side technologies such as PHP. Ajax, a web development technique using a combination of various technologies, is an example of technology which creates a more interactive experience.

Structure

Applications are usually broken into logical chunks called "tiers", where every tier is assigned a role. Traditional applications consist only of 1 tier, which resides on the client machine, but web applications lend themselves to a n-tiered approach by nature. Though many variations are possible, the most common structure is the three-tiered application. In its most common form, the three tiers are called presentation, application and storage, in this order. A web browser is the first tier (presentation), an engine using some dynamic Web content technology (such as ASP, ASP.NET, CGI, ColdFusion, JSP/Java, PHP, Perl, Python, Ruby on Rails or Struts2) is the middle tier (application logic), and a database is the third tier (storage). The web browser sends requests to the middle tier, which services them by making queries and updates against the database and generates a user interface. For more complex applications, a 3-tier solution may fall short, and it may be beneficial to use an n-tiered approach, where the greatest benefit is breaking the business logic, which resides on the application tier, into a more fine-grained model. Another benefit may be adding an integration tier that separates the data tier from the rest of tiers by providing an easy-to-use interface to access the data. For example, the client data would be accessed by calling a "list_clients()" function instead of making an SQL query directly against the client table on the database. This allows the underlying database to be replaced without making any change to the other tiers.

There are some who view a web application as a two-tier architecture. This can be a "smart" client that performs all the work and queries a "dumb" server, or a "dumb" client that relies on a "smart" server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn't allow for true specialization of layers, so most applications will outgrow this model.

Towards Understanding the Business Use

An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry. In cloud computing model web applications are Software as a Service (SaaS). There are business applications provided as SaaS for enterprises for fixed or usage dependent fee. Other web applications are offered free of charge, often generating income from advertisements shown in web application interface.

Towards Understanding the Writing Web Applications

Writing of web applications is often simplified by open source software such as Wordpress, Magento or MediaWiki called web application frameworks. These frameworks facilitate rapid application development by allowing a development team to focus on the parts of their application which are unique to their goals without having to resolve common development issues such as user management. While many of these frameworks are open source, this is by no means a requirement. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specified use case. In applications which are exposed to constant hacking attempts on the Internet, security-related problems can be caused by errors in the program. Frameworks can also promote the use of best practices such as GET after POST. In addition, there is potential for the development of applications on Internet operating systems, although currently there are not many viable platforms that fit this model.

Applications

Examples of browser applications are simple office software (word processors, online spreadsheets, and presentation tools), but can also include more advanced applications such as project management, computer-aided design, video editing and point-of-sale.

Benefits

- Web applications do not require any complex "roll out" procedure to deploy in large organizations. A compatible web browser is all that is needed;
- Browser applications typically require little or no disk space on the client;
- They require no upgrade procedure since all new features are implemented on the server and automatically delivered to the users;
- Web applications integrate easily into other server-side web procedures, such as email and searching.
- They also provide cross-platform compatibility in most cases (i.e., Windows, Mac, Linux, etc.) because they operate within a web browser window.

With the advent of HTML5, programmers can create richly interactive environments natively within browsers. Included in the list of new features are native audio, video and animations, as well as improved error handling.

Rich Internet application

A Rich Internet Application (RIA) is a Web application that has many of the characteristics of desktop application software, typically delivered by way of a site-specific browser, a browser plug-in, an independent sandbox, extensive use of JavaScript, or a virtual machine. Adobe Flash, JavaFX, and Microsoft Silverlight are currently the three most common platforms, with desktop browser penetration rates around 96%, 76%, and 66% respectively (as of August 2011). Mobile phone penetration of these plugins, however, has remained low even as internet traffic from these devices has grown. Although new Web standards have emerged, they still use the principles behind RIAs. Users generally need to install a software framework using the computer's operating system before launching the application, which typically downloads, updates, verifies and executes the RIA. This is the main differentiator from JavaScript-based alternatives like Ajax that use built-in browser functionality to implement comparable interfaces. As can be seen on the List of rich Internet application frameworks which includes even server-side frameworks, while some consider such interfaces to be RIAs, some consider them competitors to RIAs; and others, including Gartner, treat them as similar but separate technologies. RIAs dominate in online gaming as well as applications that require access to video capture (with the notable exception of Gmail, which uses its own task-specific browser plug-in). Web standards such as HTML5 have developed and the compliance of Web browsers with those standards has improved somewhat. However, the need for plug-in based RIAs for accessing video capture and distribution

Application Programming Interface

An application programming interface (API) is a source code-based specification intended to be used as an interface by software components to communicate with each other. An API may include specifications for routines, data structures, object classes, and variables. API is an essential feature too. An API specification can take many forms, including an International Standard such as POSIX or vendor documentation such as the Microsoft Windows API, or the libraries of a programming language, e.g. Standard Template Library in C++ or Java API. An API differs from an ABI (Application Binary Interface) in that the former is source code based while the latter is a binary interface. For instance POSIX is an API, while the Linux Standard Base is an ABI. An API may describe the ways in which a particular task is performed. In procedural languages like C language the action is usually mediated by a function call. Hence the API usually includes a description of all the functions/routines it provides.

For instance: the math include file for the C language contains the definition of the function prototypes of the mathematical functions available in the C language library for mathematical processing (usually called libm). This file describes how to use the functions included in the given library: the function prototype is a signature that describes the number and types of the parameters to be passed to the functions and the type of the return value.

The behavior of the functions is usually described in more details in a human readable format in printed books or in electronic formats like the man pages: e.g. on Unix systems the command man 3 sqrt will present the signature of the function sqrt in the form:

- SYNOPSIS
  - #include <math.h>
  - double sqrt(double X);
  - float sqrtf(float X);
- DESCRIPTION
  - sqrt computes the positive square root of the argument. ...

- RETURNS
    - On success, the square root is returned. If X is real and positive.

That means that the function returns the square root of a positive floating point number (single or double precision) as another floating point number. Hence the API in this case can be interpreted as the collection of the include files used by the C language and its human readable description provided by the man pages.

2. Background

Education in Asian nation is that the notwithstanding its advantages, innovation is as yet a troublesome development, and in addition a costly one. Employees are compelled to put time in adapting new methodologies with little spending help. With data innovation, understudies are like never before occupied with making their own particular learning. Separation learning and online degree programs have increased firm toehold in scholastic organizations everywhere throughout the globe. What was once viewed as the specialty channel for the conveyance of educative substance is quickly getting to be standard, expanding access to training, extended income openings and new market for content for colleges. There is much evidence in the Vedic literature to support the contention that a teacher in ancient India was held in high esteem. Even a king would stand up in his court to receive and bow before a teacher who was considered a god. The king's obligations towards the Guru and the Gurukul ended with the presentation of gifts and he would not interfere in the affairs of the Gurukul. The respect enjoyed by the teacher was due to his adherence to the ethical principles governing his conduct and behavior on the one hand and on the other his utmost devotion to his profession, which involved generation and transmission of knowledge. But things have changed with the passage of time, especially with regard to his status in the society. A number of factors like expansion of the educational system, growth in knowledge leading to proliferation of areas of study, pursuit of material values, are some of the reasons responsible for the change in the perception about a teacher's job from a mission to an occupation as a means to earn livelihood. However, non-adherence to the basic ethical principles expected of a teacher has also led to the deterioration of his status in the society.

Consequently, substantial Mechanical development, a sign of scholarly research, is changing the way that understudies learn and colleges instruct as global scenario for quality education. For learning foundations, accused of the duty of preparing understudies to contend in the present information economy, the prospects are awesome. Separation learning, chance to work with scientist over the globe and the complex frameworks of learning administration, are only a small amount of the transformational benefits that scholarly foundations are grasping. Be that as it may, considerable difficulties likewise linger instruction has remained generally unaltered.

Owston (1997) prompt 3 blessings of integration the globe wide net and by extension, alternative types of technology-into teaching and learning. First, the online appeals to students' mode of learning. He describes net use as being "integral to their world" and therefore it's a most well-liked tool for learning. Students begin terribly young mistreatment computers and therefore the net in class. By mistreatment the online, an educator is sound into a student's current context for exploring the globe. Second, the online provides for versatile learning. Students have access at their convenience. The dearth of face-to-face contact will facilitate keep students participate within the learning method. Moreover, asynchronous and synchronous communication is feasible. Third, there's revived demand for skills which will be no heritable by mistreatment the online within the learning method.

In today's world economy, skills like essential thinking, drawback resolution, writing, and dealing collaboratively are needed of everybody. Whereas these technically aren't new skills, there's revived demand for his or her development. Owston argues that the online could be a natural tool for the event of those skills, as a result of students got to surf sites and decide their content and genuineness, compare differing viewpoints, analyze and synthesize immense amounts of knowledge, and construct their own understanding of a subject. Students may also gain follow at writing to a key audience mistreatment the online. Moreover, cluster comes may be designed for business on the online, encouraging collaboration among students.

Education for World and Native Citizenship

Too often, our teaching and learning is narrowly native. We have a tendency to fail to show adequately for a world of world link. Within the context of globalization, new ways in which of considering programme became necessary. this is often thus as a result of education currently has to pay bigger attention to however it unambiguously spans the cultural, economic and social dimensions of world relations. Faculties and faculties got to acknowledge their transformative power, and their capability to become awake to up to date world changes. The context within which education currently happens has been re-shaped by globalization.

Much has been same and written in recent years concerning globalization. However an excellent deal of its seeking to know the profound world changes is serving to integrate the globe into one in depth system. Recent developments in e-learning technologies, as an example, involve information production and exchange that defy ancient boundaries. This has resulted in a very major shift towards international integration of merchandise and markets. National establishments are still vital within the world setting however currently should become engaged within the world processes or face degeneration. International competition and technological amendment is related to a work that's additional integrated and additional devolved, and needs higher levels of psychological feature and communication skills. The post-Florist vision of praise structure structures demands higher level of participation, sturdy groups, multi-skilling and life-long learning. The longer term of labor is progressively formed by technology, the capability of labor and alters management in a global context. Competitive international advantage is set by capability for continuous innovation and by a work culture that's self- and skill- reflective; that's, a work within which employees will place into follow their own judgments concerning the talents

and information they need so as to satisfy the requirements of technology and competition.

The up to date context is additionally characterized by the ever-changing world information economy. Among alternative options this includes: AN exponential increase within the quantity of internationally distributed and globally accessible information; wider diffusion of the centers of information creation; an enormous development in globally centered knowledge-mediated industries and services; changes within the access to and management over knowledge on a worldwide scale; and therefore the emergence of latest ways in which of considering the links between knowledge and innovation. The normal links between information and culture are ever-changing, with a bigger recognition that information creation and use is mediate by cultures. The ever-changing nature of the information economy involves a convoluted global-native relationship. It suggests that the character of data use and innovation demands a concurrent engagement with native factors moreover as world processes. This is often thus as a result of in cultural terms the native is currently re-shaped globally, and since the concept of world is unimportant while not its native references.

Technological innovation, an indicator of educational analysis, is ever-changing the method that students learn and universities teach. For learning establishments, charged with the responsibility of militarization students to vie within the current information economy, the prospects are nice. Distance learning, chance to figure with man of science across the world and therefore the refined systems of teach management, are simply a fraction of the transformational advantages that educational establishments are clasp. However, substantial challenges conjointly loom.

Despite its advantages, technology remains a turbulent innovation, moreover as a rich one. College members are forced to speculate time in learning new approaches with very little budget support. With info technology, students are over ever engaged in making their own information. Distance learning and on-line degree programs have gained firm foothold in educational establishments everywhere the world. What was once considered the niche channel for the delivery of informative content is speedily turning into thought, increasing access to education, dilated revenue opportunities and new marketplace for content for universities. There's a lot of proof within the Veda to support the rivalry that a tutor in ancient Asian nation was control in high esteem. Even a king would arise in his court to receive and bow before a tutor United Nations agency was thought-about a god. The king's obligations towards the Guru and therefore the Gurukul concluded with the presentation of gifts and he wouldn't interfere within the affairs of the Gurukul. The respect enjoyed by the teacher was thanks to his adherence to the moral principles governing his conduct and behavior on the one hand and on the opposite his utmost devotion to his profession, that concerned generation and transmission of data.

For over a century, education has remained for the most part unchanged. Lecture rooms jam-packed with students deferring to the knowledge of A wise faculty member has, is, and lots of believe, can still knowledge currently out there instructed. This new teacher can offer discourse. We have a tendency to should thus rise and their affiliates have formally resolved to adopt the code, with minor modifications. They have also initiated steps to evolve a mechanism for its observance. It is expected that all the teachers will readily adopt the code and resolve to observe its various articles in letter and spirit. There is little chance of any type of resistance from any section of the teaching community because controversial provisions have not been included. For example, there is no article relating to teachers striking work for the redressed of their grievances. Teachers would have resisted if it was stated in the code that teachers would in no case withhold their services from the students by striking work. Above all, its provisions emanate from the Constitution of India, national educational policies, and U.N. declarations and conventions on human rights, particularly children's rights. All the documents mentioned above are widely accepted throughout the length and breadth of the country. Thus, the acceptance and observance is fairly in- built in the code itself.

E-Learning Technology

Developments in e-learning technology have modified our method of life, whether or not it's reception, at work, in class or at leisure. The net and therefore the development of digital technology (computer-based technology) specifically, have created the foremost vital impact within the field of e-learning technology within the past decade.

The codes of ethics has emphasized that a teacher should manage his, participate actively in seminars, conferences, etc and should participate in the activities of professional organizations. In relation to his students, he should be affectionate, supportive have a tendency to have a tendency to anyplace.

The e-learning technology and impartial and in no case should be vindictive. He is relied upon to endeavor persistently to teach among understudies' logical viewpoint, regard for the vote-based system, peace, national legacy and national objectives. He should shun impelling understudies against different understudies, educators or organization and from hotel unconfirmed affirmations against associates or organization. He is relied upon to release his expert duties as per the tenets and should avoid tolerating private educational costs and instructing. An instructor should treat the non-showing staff with deference. He is additionally anticipated that would keep the understudies' watchmen educated about the advance of their wards. He ought to know about social issues and ought to contribute to their evacuation. For no situation, he ought to take an interest in such exercises as can possibly spread sentiment contempt or hostility among various groups. The two codes are almost identical in content and spirit and differ only in minor details or terminology.

More folks that are educated, will currently access career trainings and even degree courses on-line. Most universities currently recommend lecturers to put their teaching materials on-line so students will access them outside of normal lectures and tutorials. Anyone United Nations agency incorporates a

laptop and therefore the can to be told will study for a degree and/or a career amendment.

3. Review Of Work

Alexander W. Wiseman (2017) How does instructors' sexual orientation impact their e-learning innovation based direction in Saudi Arabian government schools? Utilizing one of a kind information gathered in Riyadh, Saudi Arabia, in 2014, the examinations exhibited here demonstrate that male and female educators in middle of the road school classrooms contrastingly utilize e-learning innovation.

Jeretta Horn Nord (2017) Information and communications technologies (e-learning) provide global connections, communication, and empowerment. Empowerment drives social and economic development. This study, part of an ongoing global study, investigated the use of social technologies including the purposes used and benefits realized in Italy as a means of empowerment for women. Women throughout the world are faced with technological and economic challenges. Italian women are no exception.

Sungsup Ra (2016) E-learning innovation offers open doors for governments to address key instruction difficulties of value, value, and proficiency. While governments and instructive establishments in created nations may have accepted up these open doors, numerous creating nations in Asia and the Pacific district have frequently missed them out.

Hallie Eakin (2015) Despite progressing enthusiasm for sending e-learning advancements (e-learning) for supportable improvement, their utilization in environmental change adjustment remains understudied. In view of the incorporation of adjustment hypothesis and the current writing on the utilization of e-learning being developed, we introduce a systematic model for conceptualizing the commitment of existing e-figuring out how to adjustment, and a structure for assessing e-learning achievement.

Aseih Darvish (2014) In the present dynamic wellbeing frameworks, innovation assumes a vital part in training and nursing work. So it appears to be important to ponder the part of medical caretakers and feature the requirement for fitting data innovation instructive projects to coordinate with the regularly expanding pace of innovation. An audit joined by a broad writing look in databases and a library seek concentrated on the catchphrases were utilized.

Lowther et al. (2013) have expressed that there are three critical attributes are expected to grow great quality educating and learning with e-learning: independence, ability, and inventiveness. Independence implies that understudies take control of their learning through their utilization of e-learning. Thusly, they turn out to be fit for working without anyone else and with others.

Mary Kalantzis (2012) In this snapshot of gigantic change, putting resources into old methods for doing instruction isn't the most ideal route forward. In offering a Charter for Change we perceive that information and learning will be vital to the social and individual changes important to address the particular difficulties of our circumstances.

E. N. Ivala (2011) The quick changes and union of new e-learning advances over the previous decade have changed the way remove training is utilized. The new e-learning innovation upheaval has empowered scholastic foundations to give an adaptable and more open learning condition to understudies and has brought removed locales into an electronic web of data.

Ertmer and Otternbreit-Leftwich (2010) inspected the current writing on the vital components to empower pre-benefit and in-benefit instructors to apply e-learning as an important academic apparatus. They prescribed that schools give instructors strong confirmation supporting the positive effect of innovation construct and understudy focused guideline in light of understudy learning and accomplishment on state sanctioned tests.

Kate Corby (2008) The move to electronic types of correspondence has changed the way instructive research is imparted. Specifically, it has prompted an expanded dependence on diaries. This change has been more abrupt than one may anticipate. As diaries turn into a bigger extent of the group of current grant, writers and pursuers look for new strategies for deciding and conveying diary quality. Techniques that have worked for scientists in the sciences are not specifically transferable to the training discipline.

Roberta Lamb (2005) increasingly, e-learning innovation (e-learning) utilizes are changing proficient exercises and associations in ways that test conventional presumptions about expert personality. In this examination, we consider the manners by which the expert personalities of research researchers in oceanography and sea life science are molded by the utilization of e-learning.

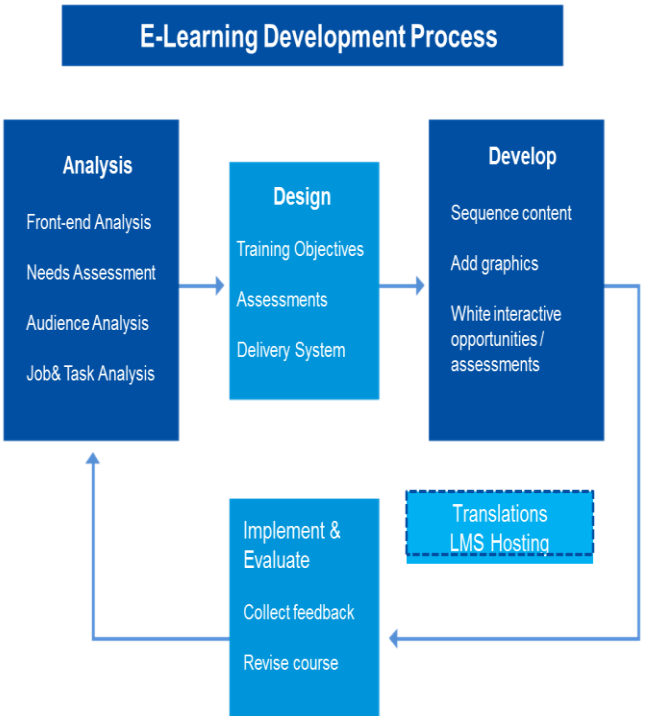
4. Research Methodology

In today's world, technology is growing at a very faster speed. A variety of data needs to be processed as the applications like social network analysis, semantic web analysis and bio-informatics network analysis are growing rapidly.

The present study performs a systematic and exploratory analysis approach to investigate the impact of techniques on education. A research design is the specification of methods & procedure for acquiring the information needed. It is the overall operation pattern or framework that stipulates what information is to be collected from which sources by what procedure.

The research methodology of this study will be depend upon collection of facts and data. A quantitative approach will be used to enable the researchers to collect data. Permission will be taken from the authorities concerned after explaining to them the purpose of the study. It is a study based on algorithms and tables. The Secondary data contains, data will be collected from various sources like journal, books and various website from internet.

5. Design And Development



Let's see the different stages in eLearning design and development. The following diagram gives a bird's eye view of the entire process.

6. Analysis

This is the first step of the eLearning development process. At this stage, you need to analyze the learning content, learning objectives and the profile of the target audience. You also need to take a look at the type of job or tasks that the participants are expected to accomplish after taking the course. Based on this, a broad instructional strategy is formulated to decide on the best way to present the content.

Design

Next, learning experts need to create a design document that incorporates the recommendations of the learning management team. Requirements of the stakeholders, training objectives, and assessments required and design challenges are taken into account at this stage. This document also specifies the instructional, visual and audio elements to be included in the course curriculum.

Develop

The specifications in the design document are executed by incorporating the content, visuals and assessments into a storyboard. The page layout, graphic user interface and multimedia elements are all finalized at this stage and incorporated into the course. There are a range of rapid authoring tools today such as Articulate Storyline, Lectora, Captivate, etc., which can be used for giving a definite shape to your eLearning course. Using rapid authoring tools expedites the course development process considerably thanks to their in-built interactivities and templates. Check out this online video that explains how to zero in on the right authoring tool for your eLearning course development.

7. Data And Algorithm

Most commercial websites use content management systems to enable site owners to add and maintain website content - copy, images, promotions, offers, and landing pages. These tools are similar to those found in a word processor, require no advanced HTML or programming skills, and help organize the extensive amount of content found in a typical website.

We offer personalized CMS services that meet the evolving demands and trends of today's e-business. We have developed a diversified range of CMS solutions utilizng varying technologies (.NET, PHP, opensource, etc) for our clients worldwide. Prior to developing a CMS solution for you we will consult with you to identify your CMS needs and then offer a CMS solution tailor-made to your specific business needs. Our expert and experienced developers, from the selection of a CMS solution to the strategic deployment of the CMS solution, will work to develop the best CMS for you to capitalize on the benefits most valuable to your website and business.

At i-CTC, our goal is not only to effectively develop, deploy and maintain content rich websites but also to remove the need for ongoing, high-priced website maintenance. By hearing about our CMS experience and previous successful CMS implementations, you can be confident in our ability to accept and deliver even the most complicated projects.

Algorithm

The algorithm consists of following component as shown in figure:

Collect Data

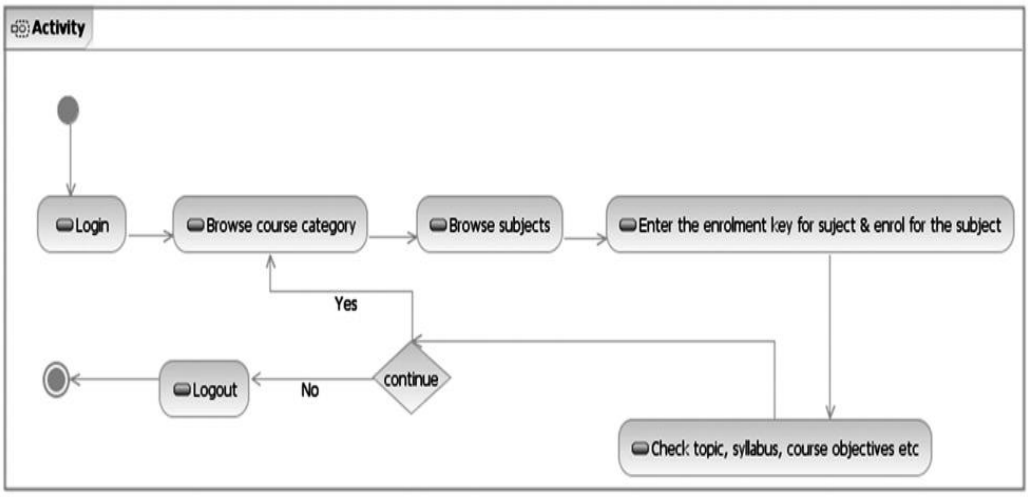
The LMS (Learning Management System) can be used to collect the student's usage and interaction information. It is an open-source course management learning system where we add categories and courses. We create the login of each student so that student can access and give the choice regarding the subjects; he/she is interested in. The course categories are shown in figure. The activity chart for student is shown in figure.

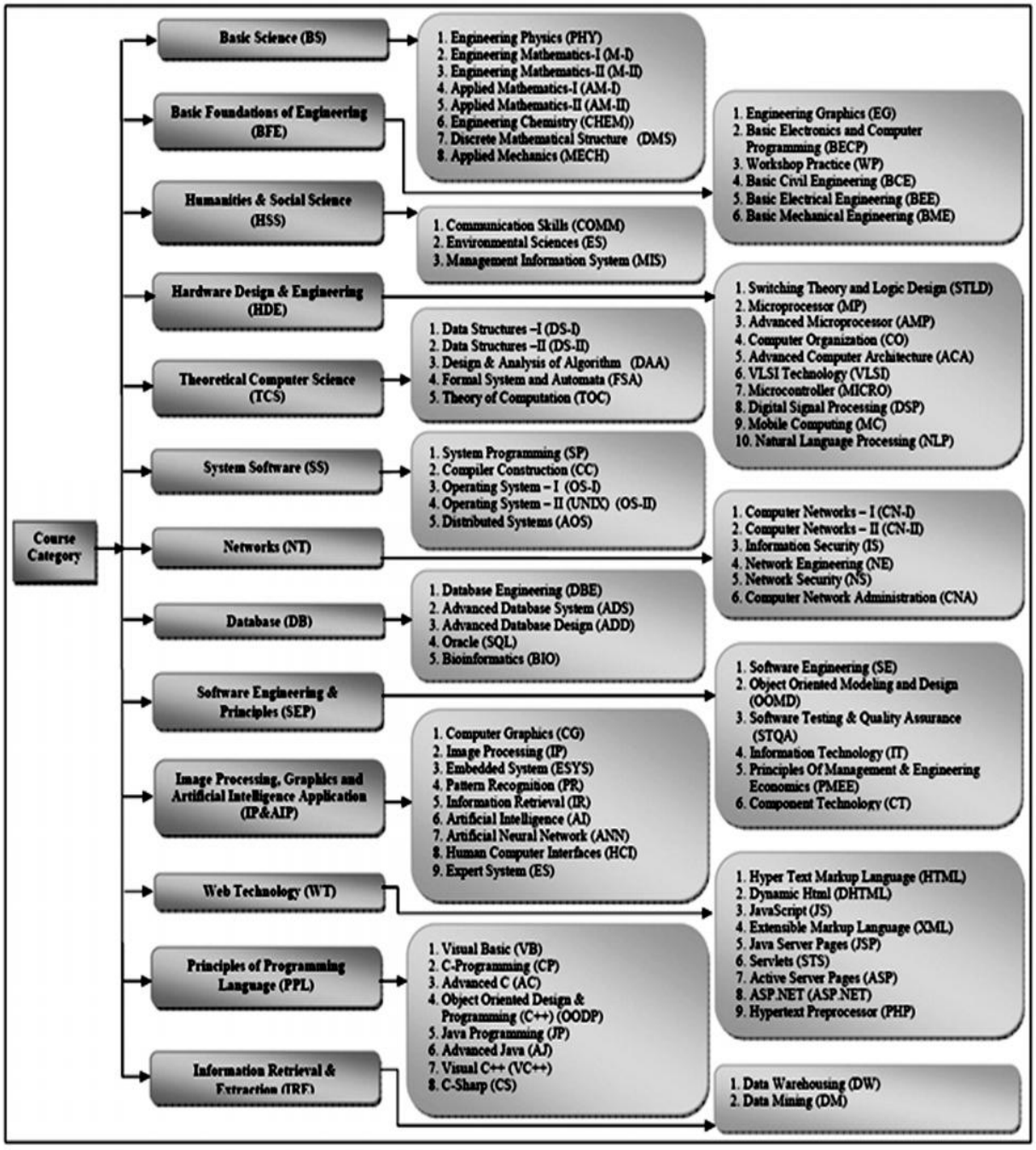
Database

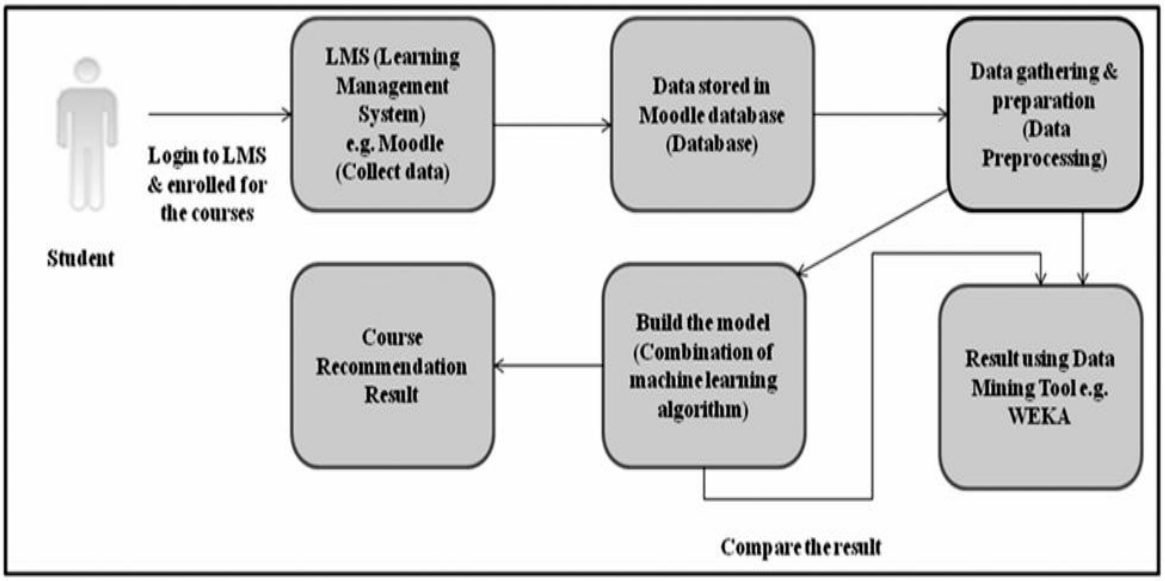
It will store student's choices about the courses in database from where we can collect the data WEKA.

Build the Model

This is our module where we propose the algorithms which may be the combinations of various data tasks such as classification, clustering or association rule.







8. Proposed Model

The proposed model in pseudo code is given below

Step 1: Create Student Login.
Step 2: Add the course category & courses under each category.
Step 3: Allow the student to logs in the system.
Step 4: While user logs in the system
Allow user to view course category
• Allow user to view courses under each category
• Enroll for those subjects in which he/she is interested
Step 5: Select the data from database & analyze it.
Step 6: Preprocess the data obtained using database
Step 7: Check the best combination of subject's result using the open source data mining tool WEKA
Step 8: Develop the algorithm which may be the combination of various data mining algorithm.
Step 9: Compare the result of this algorithm with those obtained using the WEKA
Step 10: Display the best combination of subject result

Class Mapper

Method Map (Docid, File Of Objective)
For each line ε File Of Objective Write(Docid,line)
End for

Class Reducer

Method Reduce(Docid,List(line))
S ← NULL
For each n ε 2 List(line)
S ← S + n
End for
List ← Split(s)
Index(List & Learner's profile)
Result ← BuildingGA()
Write(Result," ")

9. Databases Used

We have also implemented a relational database to store the WordNet data. This database design (IndoWordNet database) supports storage for multiple WordNets in different languages.

The design has been optimised to reduce redundancy. The data common across all languages is stored in a separate database and its size is 1.8 MB. The data specific to a language is stored in the database of respective language. The database size may differ from language to language depending on the synset information. For Konkani the size of this database is 7 MB for thirty thousand synsets. An object-oriented API (IndoWordNet API) has also been implemented to allow access of WordNet data independent of the underlying storage design. The IndoWordNet API allows simultaneous access and updates to single or multiple language WordNets. The heart of the WordNet CMS is a database (CMS database) that stores all the CMS data which is necessary to deploy all the implemented modules. The size of the CMS database is 1 MB for Konkani and should be the same for others.

The WordNet CMS is developed using PHP scripting language and can be hosted on any Web Server which supports PHP version 5.3.15 and above. Currently MySQL version 5.5.21 is used as database. The CMS development was done using XAMPP on 32 bit Microsoft Windows platform. These softwares can be downloaded from their respective sites. The Konkani WordNetwebsite created using WordNet CMS has been deployed on Fedora 16 Linux Platform using Apache version 2.2.22 and MySQL version 5.5.21 which come bundled with Fedora 16 Linux Platform.

10. CONCLUSION

It is evident that although major ratio (i.e. 40%) of work effort is put in code and unit test phase. The rest 60 percent effort is put in different areas of the project development life cycle. Hence this signifies the importance of estimating cost for these phases of software development life cycle.

Use of technology to facilitate learning is accepted to be of value across educational institutions. Government of India has taken cognizance of the institutional support required for

resources in e-learning and formulated the national mission on education through ICT. However, the focus is still largely on getting the infrastructure and creating the e-learning content. It is necessary to consider the individual factors that play an important role in the adoption of e-learning. For example, attitude of students and teachers towards e-learning may affect their acceptance of the technology in the teaching-learning process. While there have been studies to understand the factors of the instructors (e.g. release time for staff to engage in e-learning) and students (e.g. learning style) in acceptance of e-learning separately, a comprehensive view that considers both students and teachers in the same model is lacking.

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