



## ILOCOS SUR POLYTECHNIC STATE COLLEGE

**"FARMERS' BUGLE ONLINE: THE WEB PUBLICATION MAGAZINE OF  
ILOCOS SUR POLYTECHNIC STATE COLLEGE  
COLLEGE OF AGRICULTURE"**

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## ILOCOS SUR POLYTECHNIC STATE COLLEGE

### Chapter I

#### INTRODUCTION

Nowadays Internet has become so common that people who are unaware about Internet are referred as clumsy. This is due to the speedy development of technology and globalization. Societies are becoming more and more unified. One can easily contact the person sitting in a different country. One shares his knowledge, and thoughts thought Internet. Study results have traced the popularity of Internet usage. Last year's study has wind up that email is the topmost task which is conducted online, followed by general surfing, news reading, shopping, and many others.

Internet shopping has also become popular amongst users especially in developed nations; this is because 'shop on Internet' is more efficient than physically going into the stores. The Internet endow with the surroundings where shopper's demands are fulfilled. Shopping on the Internet also saves time and one can select a better product without having to travel a long distance. While using the Internet, a shopper can scrutinize the product's prices from various stores by sitting on one place. He can now shop online for the goods which are normally get sold in a foreign nation rather than having to travel to the country to take the delivery of the goods. He can place the order online and get it efficiently delivered.

Internet also gives us the opportunity to communicate effectively and efficiently. For example, sending an email costs lower than posting a letter in the mail, especially for people who have to communicate internationally. Besides an email can be sent within a



minute after it is written. Sending a e-mail doesn't need to complete the official procedure such as going and the post office and a mail box or etc. The recipient of the email can view it any time and at any place, as it is a virtual means of communication, as opposed to having a mail box where the letters get delivered.

Internet use is not only limited to shopping and communication with people. It also provides the environment for news distribution and aids the people to be updated with the latest news. We can access the data easily through it may be across the world. Internet is also a very good form of communication for people who want to express their own view points and feelings. For youngsters, Internet is not only a place of knowledge but it also has an entertainment aspect such as online games, downloading movies, music etc. But this is not the only reason why the Internet appeals to the younger generation. It is agreed that the Internet provides ease and facility to research among university students. This is because a large number of articles on the same topic can be found on the Internet by just one search.

To put it briefly, the popularity of the Internet have contributed in the most part to development of the society. We can say that people are nowadays becoming more reliant on the Internet for their day to day work. Certainly they are making the use of this facility for their routine life to save time and cost. Ultimately, it's a tool that is effective if used properly and effectively.

### **Background of the Study**

The Farmers' Bugle is the official student publication of the ISPSC College of



Agriculture, Ilocos Sur Polytechnic States College (ISPSC-CA). The publication is released once every semester. However for the academic year 2008-2009, there was no issue that was released. Because of lack of fund for the printing.

An online publication for the Farmers' Bugle would entail less cost, and it would enable the staff to publish issues more frequently.

### Significance of the Study

This study is important for the following reasons:

- To the College, the online Farmers' Bugle will serve as a window where people from all over the world who have access to the Internet are updated about the issues and concern of ISPSC;
- To the publication staff, the output of this study will enable them to publish an issue faster as scheduled at a lesser cost. The use of multimedia such as sound and video in the online publication will surely boost their essential endeavors of the college.
- To the contributors, the online publication developed provides an alternative medium for faster submission of articles, and it will allow online editing of articles by the publication staff;
- To the students, employees and other stakeholders, the website will provide their access easier and better to information.



### Statement of the Problem

This study aimed to develop an online magazine for the Farmers' Bugle publication of Ilocos Sur Polytechnic State College-College of Agriculture as a complement the printed version and alternative publication medium.

Specially, it ought to answer the following question:

- What is the current practice in the publication of the Farmers' Bugle?
- What are the problems encountered by the Farmers' Bugle staff in the current practice of publication?
- What are the features of an online version of the Farmers' Bugle?
- What are the implementation options in the establishment of the online version of the Farmers' Bugle?

### Statement of the Objectives

#### General Objectives

This research aims to develop a Farmers' Bugle Online: The Web Publication Magazine of Ilocos Sur Polytechnic State College-College of Agriculture (ISPSC-CA).

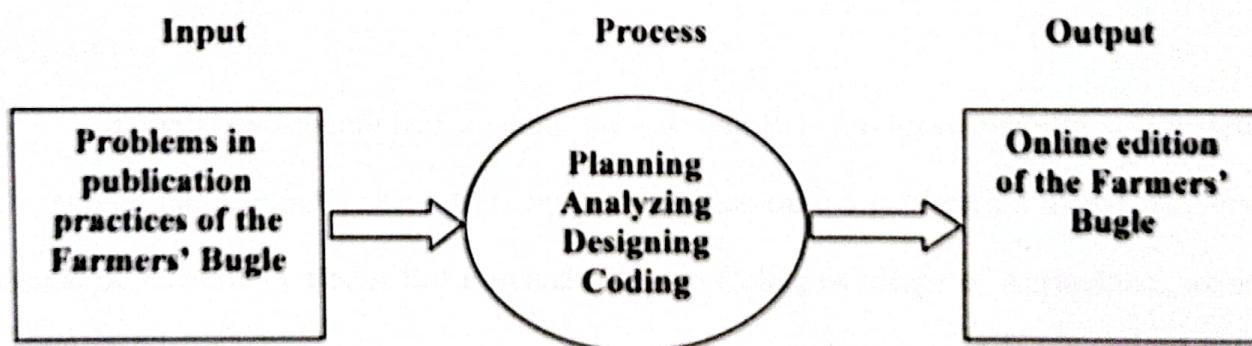
#### Specific Objectives

- To gather information about their office and their current system.
- To analyze the flow of data and information of the Farmers' Bugle Online: The Web Publication Magazine Of Ilocos Sur Polytechnic State College-College of Agriculture (ISPSC-CA).

- To develop Farmers' Bugle Online: The Web Publication Magazine of Ilocos Sur Polytechnic State College-College of Agriculture (ISPSC-CA) without the chances of leaking to the net.

### **Conceptual Framework**

As shown in the figure 1, the conceptual Framework Paradigm described the flow of research. The current flow of system of the Farmer Bugle online, the web publication magazine of Ilocos Sur Polytechnic State College-College of Agriculture serves as the basis of definition of an appropriate system model. The researchers then, used the system engineering to complete the system. They want process through by to interviewing the staff and the adviser of the Farmers' Bugle publication of ISPSC College of Agriculture, Santa Maria Ilocos Sur in order to create a proposal for the development of an online publication. The next was analysis of gathered data for planning, designing, and testing to come up with a newly developed online Farmers' Bugle Publication of the main campus of Ilocos Sur Polytechnic State College Agriculture, Santa Maria Ilocos Sur.



**Figure 1. Conceptual Framework Paradigm**



## **Scope and Delimitation**

This study was delimited to the development of an online version of the Farmers' Bugle, the official student publication of the Ilocos Sur Polytechnic State College. The study was conducted at ISPSC College of Agriculture during the second semester, academic year 2008-2009.

The study is limited to the planning, analysis, design and development of the online Farmers' Bugle. The implementation is not included in the project. However, an implementation plan was offered.

## **Assumption**

The successful development of this website depended on the following: 1. The advisers, editor-in-chief, staff and other sectors involved in the website development process are willing to cooperate and provide information for the requirements of the system that we need to make. The resources (hardware/software) for the development of the website are available.

## **Hypothesis**

If the above mentioned assumptions are met the developed website will benefit the school and the publication staff by providing an online publication of the Farmers' Bugle publication of Ilocos Sur Polytechnic State College-College of Agriculture, where the different events, and activities, issues and concerns of the students, population, as



well as the college administrative and the community and others relevant information about ISPSC-CA main campus could be posted.

### Definition of Terms

**Main menu.** Initial navigation area of the page.

**Online.** Connected to or controlled directly by a computer.

**System.** Refers to group or related component.

**Template.** Determine the layout of the pages.

**Top menu.** Is high up on the page as possible.

**Web.** To cover or provide with webs or a network.

**Website.** A collection of web pages, images videos or other digital assets that is hosted on one or several web server(s), usually accessible via the Internet, cell phone or a LAN.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

The website design is the creative side of the process. It involves that the expertise of the site owners, programmers and code experts. The experts can be a whole team or it is team export to combine their skills and talents to developing an interesting and professional website to advertise the quality of the school's papers which is the Farmers' Bugle Publication of Ilocos Sur Polytechnic State College-College Of Agriculture promoting the online magazine through the web.

A system development process can follow a number of standard or company specific frameworks, methodologies, modeling tools and languages. Software development life cycle normally comes with some standards which can fulfill the needs of any development team. Like software, web sites can also be developed with certain methods and with some changes and additions with the existing software development process. The following are the steps involve in any web site development.

**1. Analysis:** Once a customer has started discussing his requirements, the team gets into it, towards the preliminary requirement analysis. As the web site is going to be a part of a system, it needs a complete analysis such as; how the web site or the web based application is going to help the present system and how the site is going to help the business. Moreover, the analysis should cover all the aspects especially on how the web site is going to join the existing system. The first important thing is finding the targeted audience. Then, all the present hardware, software, people and data should be considered



during the time of analysis. For example, if a company XYZ corp. is in need of a web site to have its human resource details online, the analysis team may try to utilize the existing data about the employees from the present database. The analysis should be done in the way, that it may not be too time consuming or with very less informative. The team should be able to come up with the complete cost-benefit analysis and as the plan for the project will be an output of analysis, it should be realistic. To achieve this analyst should consult the designers, developers and testers to come up with a realistic plan.

**Input:** Interviews with the clients, Mails and supporting documents by the client, Discussions Notes, Online chat, recorded telephone conversations, Model sites/applications etc.,

**Output:** 1. Work plan, 2. Cost involved 3. Team requirements, 4. Hardware-software requirements, 5. Supporting documents and 6. The approval

**2. Specification Building:** Preliminary specifications are drawn by covering up each and every element of the requirement. For example if the product is a web site, then the modules of the site including general layout, site navigation and dynamic parts of the site should be included in the specifically. Larger projects will require further levels of consultation to assess additional business and technical requirements. After reviewing and approving the preliminary document, a written proposal is prepared, such as outlining the scope of the project including responsibilities, timelines and costs.

**Input:** Reports from the analysis team

**Output:** Complete requirement specifications to the individuals and the customer/customers representative

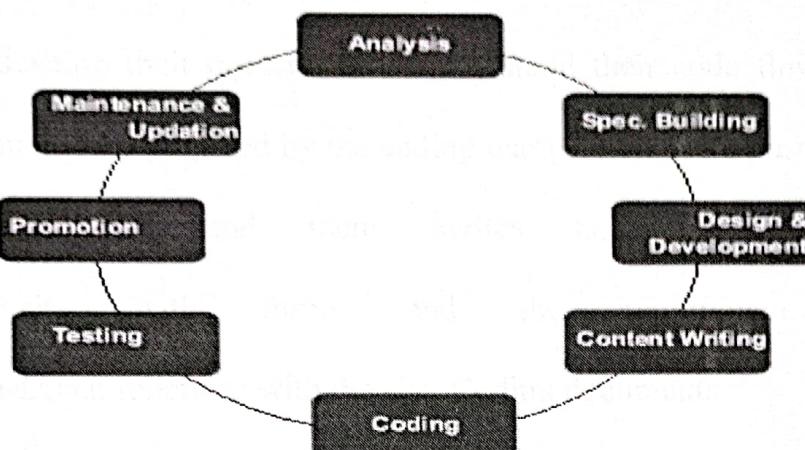


**3. Design and development:** After building the specification, work on the web site is scheduled upon receipt of the signed proposal, a deposit, and any written content materials and graphics you wish to include. Normally, the layouts and navigations will be designed as a prototype. Some customers may be interested only in a full functional prototype. In this case, we need to show them the interactivity of the application or site. But in most of the cases customer may be interested in viewing two or three design with all images and navigations.

There can be a lot of suggestions and changes from the customer's side, and all the changes should be frozen before moving into the next phase. The revisions could be redisplayed via the web for the customer to view. As needed, a customer gives his comments. Feedbacks and approvals can be communicated by e-mail, fax and telephone. Throughout the design phase the team should develop test plans and procedures for quality assurance. It is necessary to obtain client approval on design and project plans. In parallel, the Database team will sit and understand the requirements and develop the database with all the data structures and sample data will also be prepared.

**Input:** Requirement specifications

**Output:** Site design with templates, Images and prototype



**Figure 2. System Development Life Cycle Diagram**

**4. Content writing:** This phase is necessary mainly for the web sites. There are professional content developers who can write industry specific and relevant content for the site. Content writers to add their text can utilize the design templates. The grammatical and spelling check should be over in this phase.

Input: Designed template

Output: Site with formatted content

**5. Coding:** Now, its programmers turn to add his code without disturbing the design. Unlike traditional design, the developer must know the interface and the code should not disturb the look and feel of the site or application. So, the developer should understand the design and navigation. If the site is dynamic, then the code should utilize the template. The developer may need to interact with the designer, in order to understand the design. The designer may need to develop some graphic buttons whenever the developer is in need, especially while using some form buttons. If a team of developers is working they should use a CVS to control their sources. Coding team should generate



necessary testing plans as well as technical documentation. For example, Java users can use JavaDoc to develop their documents to understand their code flow. The end-user documentation can also be prepared by the coding team which can be used by a technical writer who can understand them, writes helps and manuals later.

**Input:** The site with forms and the requirement specification

**Output:** Database driven functions with the site, Coding documents

**6. Testing:** Unlike software, web based applications need intensive testing, as the applications will always function as a multi-user system with bandwidth limitations. Some of the testing which should be done are: Integration testing, Stress testing, Scalability testing, load testing, resolution testing and cross-browser compatibility testing. Both automated testing and manual testing should be done without fail. For example, it's needed to test fast loading graphics and to calculate their loading time, as they are very important for any web site. There are certain testing tools as well as some online testing tools which can help the testers to test their applications. For example ASP developers can use Microsoft's Web Application Test Tool to test the ASP applications, which is a free tool available from the Microsoft site to download. After doing all the testing a live testing, is necessary for web sites and web based applications. After uploading the site, there should be a complete testing (E.g... Links test)

**Input:** The site, Requirement specifications, supporting documents, technical specifications and technical documents.

**Output:** Completed application/site, testing reports, error logs, frequent interaction with the developers and designers



**7. Promotion:** This phase is applicable only for web sites. Promotion needs preparation of Meta tags, constant analysis and submitting the URL to the search engines and directories. The site promotion is normally an ongoing process as the strategies of search engine may change quite often. Submitting a site URLs once in 2 months can be an ideal submission policy. If the customer is willing, then paid click and paid submissions can also be done with additional cost.

Input: Site with content, Client mails mentioning the competitors

Output: Site submission with necessary Meta tag preparation

**8. Maintenance and Updating:** Web sites will need quite frequent updating to keep them very fresh. In that case, we need to do analysis again, and all the other life cycle steps will repeat. Bug fixes can be done during the time of maintenance. Once your web site is operational, ongoing promotion, technical maintenance, content management & updating, site visit activity reports, staff training and mentoring is needed on a regular basis depend on the complexity of your web site and the needs within your organization.

Input: Site/Application, content/functions to be updated, re-Analysis reports

Output: Updated application, supporting documents to other life cycle steps and teams.

The above-mentioned steps alone are not strict to web application or web site development. Some steps may not be applicable for certain tasks. It depends on the cost and time involved and the necessity. Sometimes if it is an intranet site, then there will be no site promotion. But even if you are a small development firm, if you adopt certain planning along with this web engineering steps in mind, it will definitely reflects in the Quality of the outcome.



## **Content Management System**

A content management system (CMS) is a system used to manage the content of a Web site. Typically, a CMS consists of two elements: the content management application (CMA) and the content delivery application (CDA). The CMA element allows the content manager or author, who may not know Hypertext Markup Language (HTML), to manage the creation, modification, and removal of content from a Web site without needing the expertise of a Webmaster. The CDA element uses and compiles that information to update the Web site. The features of a CMS system vary, but most include Web-based publishing, format management, revision control, and indexing, search, and retrieval.

The Web-based publishing feature allows individuals to use a template or a set of templates approved by the organization, as well as wizards and other tools to create or modify Web content. The format management feature allows documents including legacy electronic documents and scanned paper documents to be formatted into HTML or Portable Document Format (PDF) for the Web site. The revision control feature allows content to be updated to a newer version or restored to a previous version. Revision control also tracks any changes made to files by individuals. An additional feature is indexing, search, and retrieval. A CMS system indexes all data within an organization. Individuals can then search for data using keywords, which the CMS system retrieves.

A CMS system may also provide tools for one-to-one marketing. One-to-one marketing is the ability of a Web site to tailor its content and advertising to a user's specific characteristics using information provided by the user or gathered by the site (for



example, a particular user's page sequence pattern). For example, if you visit a search engine and search for "digital camera," the advertising banners will advertise businesses that sell digital cameras instead of businesses that sell garden products.

Two factors must be considered before an organization decides to invest in a CMS. First, an organization's size and geographic dispersion must be considered especially if an organization is spread out over several countries. For these organizations, the transition to CMS is more difficult. Secondly, the diversity of the electronic data forms used within an organization must be considered. If an organization uses text documents, graphics, video, audio, and diagrams to convey information, the content will be more difficult to manage.

### Joomla

Joomla!, according to its own description, is a "Cutting Edge Content Management System" and one of the most powerful Open Source Content Management systems in the world. It is used world-wide for anything from simple homepages to complicated corporate websites. It is easy to install, easy to manage, and very reliable. Joomla! is a full-featured content management system that can be used for everything from simple websites to complex corporate applications. [Hagen Graf, 2006]

This section explains the basic structure of Joomla!. The different functionalities offered by a CMS can be split up into a number of categories. These categories together form the structure of a CMS.

**Front End and Back End.** A CMS consists of a front end and a back end. The **front end** is the website—what the visitors and the logged-on users see. The **back end**,



on the other hand, contains the administration layer of the website for the administrator. Configuration, maintenance, cleaning, creation of statistics, and new content creation are all done in the back end. The back end is at a different Uniform Resource Locator (URL) than the website.

**Configuration Settings.** Settings that apply to the entire website are specified using the configuration settings. These include the title text in the browser window, passwords for search engines, switches that permit or forbid logging on to the site, switches that switch the entire page offline or online, and many other functions.

**Access Rights.** Whenever we talk of management, we talk of the clever administration of existing resources. In a CMS, usernames are assigned to people involved and these are provided with different **access rights**. This ranges from a simple registered user through an 'author' and 'editor' up to the 'super-administrator', who has full control over the domain. Based on the rights, the website then displays different content, or the user works in administrative areas apart from the website.

**Content.** Joomla! Handles all kinds of content; in the simplest case, it is text. But content can also be a picture, a link, a piece of music, or a combination of everything. To keep an overview of the content, one embeds it in structures. For example, texts of different categories. The categories, of course, are also content that need to be administered.

**Templates.** A template is a kind of visual edit format that is placed on top of content. A template defines the colors, character fonts, character sizes, background



pictures, spacing, and partitioning of the page—in other words, everything that has to do with the appearance of the page.

**Extensions (Components).** Every system has to be expandable and be able to grow with the requirements. Functionalities that belong to one context are also covered by the term components. For example, typical components are an online shop, a user manager, a newsletter maintenance system, or a forum. Components contain the business logic of their page. Modules within the components are used to integrate content in the desired form into templates. For example, a recent news module supplies the headings of the five most recent pieces of news to the template. Another module delivers the number of users that are online at the time, or the meteorological data for your current town or city.

**Workflow.** By workflow one understands a work routine. Since several people usually work with CMS content, well-organized workflows are a genuine help. In this connection, one sometimes speaks of work supplies that a certain user has. For example, the editor sees a list of posted pieces of news that he or she has to examine for correctness. After examining, the editor marks the pieces of news as correct and they appear in the work supply of the publisher. The publisher then decides whether to publish the piece on the front page.

### **Online Magazine**

An **online magazine** is published by means of hardware and software connections to a communications network, issued over time with no predetermined conclusion; and



which is issued in a succession of discrete issues or parts, the parts usually being identified by sequential numbering or chronology. Online magazines comply with the requirements for identification using International Standard Serial Numbers (ISSNs). They are referred to as online continuing resources or online serials. The definitions of continuing resources and serial publications are found in ISO 3297 standard (ISSN) produced by TC46 of the International Organization for Standardization (ISO).

Where a publisher distributes material in more than one medium (for example, printed magazine, CD-ROM version, online web site), each version is considered **a separate entity** and assigned a separate number. This excludes reproductions, that is, printed or digital copies made for archival, research or other purposes not related to the intended distribution mechanism. ISSNs relate to a "key title" and in the case of an online magazine, the address (Uniform Resource Locator or URL) may change and it is still considered the same publication.

Publishers of traditional print magazines may use the same titles, or a variation thereof to identify their resources, for example "<publication title> Online" or "<publication title> Online Magazine". There is no standard and the titles are at the publisher's discretion, dedications based on marketing forces. For cataloguing purposes they may be referred to as "<publication title> (Print)" and "<publication title> (Online)".

Online magazines that are part of the World Wide Web, that is, all or part of a web site are also called webzines. Ezine (also spelled e-zine and usually pronounced "e-zeen") is a more generic term commonly applied to magazines and newsletters distributed by any electronic method, for example, by electronic mail (e-mail/email). Some social



groups may use the terms **cyberzine** and **hyperzine** when referring to electronically distributed resources. Similarly, some online magazines may refer to themselves as "electronic magazines" to reflect their readership demographics, and more importantly to capture alternative terms and spellings in online searches. [Wikipedia]

The first part of the presentation focused on the growth of the digital media industry in the Philippines. It was presented by Mr. Christopher L. G. Dizon, a member of the Ilocos Sur Polytechnic State College faculty. He discussed the growth of the digital media industry in the Philippines, the challenges faced by the industry, and the opportunities it presents. He also talked about the impact of digital media on society and the economy. The presentation also included a discussion of the various types of digital media, such as websites, blogs, social media, and mobile media. It also covered the different ways of monetizing digital media, such as advertising, sponsorships, and affiliate marketing. The presentation concluded with a Q&A session where the audience could ask questions and interact with the speaker.