

Improvement of Web Rankings and Implementation of Components Sub-domain

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Abstract—Continuous improvement is important in web rankings. It is important that the institutional has a website and social media pages because it is the main sources of information from the institution. This study focus on the improvement of web ranking of the Institution. On the previous study, the proponent proposed a newly developed website and measured the performance. Meanwhile, this study focused on improvement of web rankings by implementing subdomains. This is a developmental research that aims to improve the online presence of Pangasinan State University thru additional information and domains for the institution, established social media pages, and continuous email management is assessed too. This study sought to answer the following specific questions which are: What processes are involved in the implementation of components subdomain? What are the needed resources in upgrading the online presence of the university website and social media page? This developmental research aims to improve the web rankings of the institution.

Keywords— website, education

I. INTRODUCTION

THE Pangasinan State University information website (psu.edu.ph) was redesigned last August 2016. Last June 2016, the rank of PSU website in region 1 compared to other SUC is ranked 6th with the global rank of around 9 million. During the month of January to March, the website ranking of PSU went up, from Rank 6 to Rank 2 in the region. As of this day (7/22/2017), the ranking of the website is 2,228,290 (2 million) worldwide being the Top 2 in the region, while the No. 1 competitor is 702,192 which is MMSU. Based on the previous research conducted by the proponent, our website incurred a monthly visitor of 5,000 while MMSU has 17,000 monthly visitors. To increase the monthly visitor of the University website, a subdomain for each campus is proposed, and pages for research and extension will be constructed.

The website was first registered in domain registrar around 2002 based on the first archives of the website [1]. Maintaining a website ranking is a challenge. This developmental research aims to rebuild and increase the web ranking of the University website psu.edu.ph. Thus this study provides three basic information of a project proposal, a problem statement, a proposed solution for improvement of web rankings.

One of the major challenges of a website is its maintenance,

and how to continuously improve its online presence. Due to the previous turnover of designation, and in the absence of designated web administrator, the psu.edu.ph website was inactive for quite sometimes before and officials are using email address outside the domain. While it is already corrected from the previous projects that numbers of social media page run by anonymous, there are still pages that available online that provide wrong information about the institution.

A. Research Objectives

This developmental research has three objectives, first is to create a list subdomains that could utilize for web rankings. Second is to build campus and component website and accredit more social media pages and lastly the proposed content and structure of the website and identify the resources needed for continuous improvement. The study is limited only to one institution, the Pangasinan State University located at Poblacion, Lingayen, Pangasinan. It focused on an institutional website rather than a business website.

B. Significance of this Study

At the present (July 2017), the current ranking of the psu.edu.ph website is 2,126,824 compared to the previous ranking of 8,423,657 (June 2016) worldwide. It is previously placed 6th at the whole SUC in the region while it is ranked 2nd in the present. Aside from improving the web ranking, the institutional website guides as the main source of information. An institution that has its own effective website, will have an instant online brochure [2]. Thus, this study will help the designated web administrator of the institution to maintain the web ranking of the website.

II. PREVIOUS STUDIES

On the previous study, the proponent proposed the development of the university website from the scratch. Aside from building the university website, the unit also accredits social media pages to avoid confusion for the visitors and lastly, a full functioning information website with the help of the MIS and PRPIO coordinators of each campus.

There are several proposals conducted in building a website. While in the previous study proposes only a single website. This study is a big challenge to the web administration unit for the development of several pages. Based on related studies, the content varies from the needs of each institution, business or organization. This is true since the institution has 9 campuses and information varies from the needs of each campus. According to the book, Cognitive wireless communication networks [3] websites seem to have a

significant influence on sales and corporate image and are expected to contribute to overall customer satisfaction. Since one goal of the new administration of PSU is overall customer satisfaction, maintaining and increasing the website ranking will give a contribution to the goal.

Today, it is very unlikely for a business to not have an online presence [4]. One article discussed 10 importance of having a website. One importance that the researcher emphasizes was a website will provide an easier way to handle customer service. This is true because an online website is available 24/7 and information are available when the network is online.

III. METHODOLOGIES

This research has three objectives, first is to create a list subdomains that could utilize for web rankings. Second is to build campus and component website and accredit more social media pages and lastly the proposed content and structure of the website and identify the resources needed for continuous improvement.

A. Collection of Subdomains

In order to create a list of subdomains for web development.



Fig: 1 Lean UX [7]

Another way to achieve this goal, the proponent will request a meeting addressed to the campus MIS technical staff or coordinators for the preparation of development.

C. Content Administration

On the previous study, The initial content of the website is gathered from PRPIO (Public Relations and Public Information Office) office as the publication arm of Pangasinan State University. The proponent will also request for a separate meeting addressed to the campus PRPIO coordinators to acquire information for each campus websites.

IV. RESULTS AND IMPLEMENTATION

The discussion of the result was based on the implemented proposal entitled “Proposed Hosting Upgrade for the University Website and Establishment of Campuses and Components Web Pages including Research & Extension Web Services”

A. List of Subdomain

The following are the list of the subdomain. It is divided into four categories, first is the proposed subdomain for the

collaboration is important. The proponent will call a meeting to all PRPIO coordinators and MIS Staff for collaboration and brainstorming. A list of a subdomain for web development will be the expected output.

B. Web Development

Before the development of the website, the current website is designed under DNN (DotNetNuke) that runs on a windows server with static IP address under a collocated server, the practice of housing privately-owned servers and networking equipment in a third party data center [5]. While collocated server is needed by a corporate running a system, the web administration unit shifted to a cloud hosting that is enough for the needs of the single website.

On the second objective, the researcher will choose CMS (Content Management System) WordPress to build websites for the campuses and components. It will still adopt 5 Step Methodology for a WordPress design [6]. On the previous web development process, the proponent used Waterfall development model, while on this development process, the proponent will adapt Lean UX development model over a waterfall.

campuses, second is the proposed subdomain for the components (non-campus), third is the proposed subdomain for the unit (Research and Extension Unit), and lastly to avoid confusion for the student

and staff, a new redirected URL for Student and Employee Portal was created.

A. PROPOSED Subdomains for the Campuses

- a. <http://alaminos.psu.edu.ph> - Web Address for the PSU Alaminos Campus
- b. <http://asingan.psu.edu.ph> - Web Address for the PSU Asingan Campus
- c. <http://bayambang.psu.edu.ph> - Web Address for the PSU Bayambang Campus
- d. <http://binmaley.psu.edu.ph> - Web Address for the PSU Binmaley Campus
- e. <http://infanta.psu.edu.ph> - Web Address for the PSU Infanta Campus
- f. <http://lingayen.psu.edu.ph> - Web Address for the PSU Lingayen Campus
- g. <http://sancarlos.psu.edu.ph> - Web Address for the PSU San Carlos Campus
- h. <http://stamaria.psu.edu.ph> - Web Address for the PSU Sta Maria Campus
- i. <http://urdaneta.psu.edu.ph> - Web Address for the PSU Urdaneta Campus

B. Propose Subdomains for the Components

- a. <http://ous.psu.edu.ph> - Web Address for the Open University Systems
- b. <http://sas.psu.edu.ph> - Web Address for the School of Advanced Studies
- c. <http://eteep.psu.edu.ph> - Web Address for the ETEEAP

C. Propose Subdomains for Units

- a. <http://research.psu.edu.ph> - Web Address for Research
- b. <http://extension.psu.edu.ph> - Web Address for Extension

D. Proposed Redirection

- a. <http://portal.psu.edu.ph> - Student's Portal
- b. <http://employee.psu.edu.ph> - Employee's Portal

B. Website Development

Because of the proposed upgrade, the proponent proposed to upgrade the web hosting of the intuition from shared hosting to VPS hosting.

package information

Account Plan	VPS Enhanced Web Hosting 12 Month Price - \$41.99/mo. ▾
Hosting Price	\$503.88 (\$41.99 for 12 months)
Setup Fee	Free
Search Engine Jumpstart	<input checked="" type="checkbox"/> - \$299 per month (Billed annually at \$35.88/yr) More information
SiteLock Security - Find	<input checked="" type="checkbox"/> - \$199 per month (Billed annually at \$23.88/yr) More information
Total	\$563.64

Fig: 2 Proposed Hosting Plan [9]

The DNS was changed to a new IP. While waiting for the full propagation of the DNS, the proponent installs the Wordpress CMS under the cPanel of the hosting with the tool Softaculous, which is integrated into the hosting. Lastly, EduTheme was still used as a theme for all campuses [10] which was purchased.

C. Initial Content of the Website

A website will not be a website without a content. From the meeting of the MIS and PRPIO coordinators. The site comes up with a homepage with About Us, Administration, Latest News, Student Services and Web Services. Contents are gathered from the Bulletin of Information of the institution published by the PRPIO.

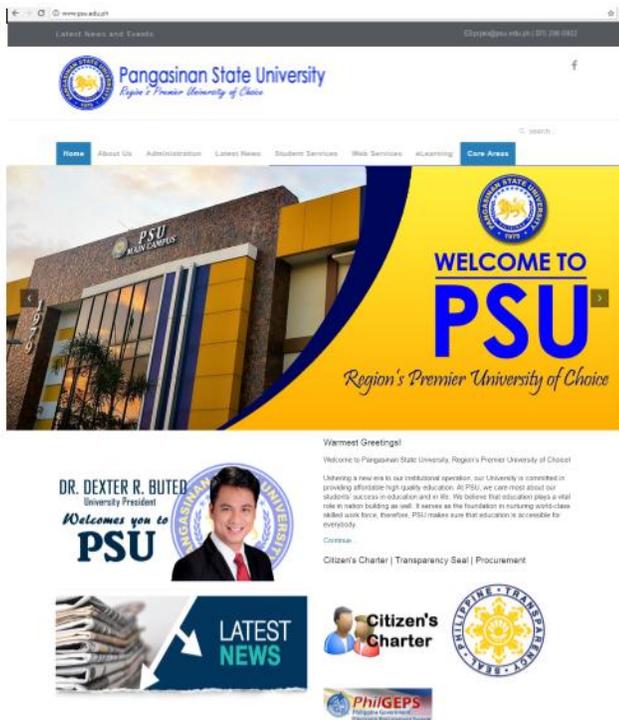


Fig 3: Screenshots of the www.psu.edu.ph website

Uploading of information to the newly installed website doesn't need programming skills, CMS Wordpress provides

easy set-up uploading of multimedia simply from drag to drop. The CMS Platform makes the job of a web developer easy. Instead of focusing on development, the proponent focuses on gathering content and information to be uploaded to the University Website.

V. CONCLUSION AND RECOMMENDATION

Visitors of the website are important to improve its ranking. While the university saves almost 95 percent of the cost of hosting and development, maintenance of the new subdomain website is another challenge. Alexa ranking is expected to rise after the launching of the websites. This provides a number of visitor due to psu.edu.ph due to increasing number of contents.

It is recommended to audit the web ranking of the website after 6 months; a future study should be conducted to know the ranking of the newly created campus and components website of Pangasinan State University. Google Analytics tool is recommended to install in the header of the homepage to monitor the visitor of the website for future reference. Also, optimizing the website at search engine should be conducted.

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